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TONGUE RIVER RAILROAD

ENVIRONMENTAL ASSESSMENT

for proposed
state permit, lease and easement decisions

Southeastern Montana

PREPARED BY

MONTANA DEPARTMENT OF STATE LANDS

MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS

and the

MONTANA DEPARTMENT OF HIGHWAYS

September 26, 1989

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CHAPTER I - INTRODUCTION

A. Summary of Proposal

The Tongue River Railroad Company (TRRC) was first organized in March 1980 as the TR Railroad. At that time it was a corporation composed of Diamond Shamrock, Washington Energy and Wesco Resources. In June of 1981 the company was re-organized to include Consolidation Coal and was incorporated under the name of the Tongue River Railroad Company (TRRC). Today the TRRC is a limited partnership consisting of D.S. Cartage Corporation, Thermrail, Inc., Wesrail, Inc., and Otter Creek Transportation Company.

The purpose of the rail line would be to transport coal from the Ashland/Birney/Otter Creek areas of southeastern Montana to markets in the midwest and elsewhere. As a common carrier, the TRRC might also haul commodities other than coal.

The TRRC filed an application in June 1983, pursuant to Section 10901 of the Interstate Commerce Act, requesting authorization from the Interstate Commerce Commission (ICC) to construct and operate a new 89-mile rail line. This new rail line would begin from its tie into the Burlington Northern tracks at Miles City and proceed south along the Tongue River valley where it would split near Ashland, Montana, going to two different termination points each approximately 8 miles south and southeast of Ashland (Figure 1). The ICC issued a Certificate of Public Convenience and Necessity in May 1986 which authorizes the construction and operation of the railroad. A summary of the ICC process and EIS, and of TRRC's history is in Appendix A. Mitigations required by the ICC are identified in Appendix B.

This proposed rail line would cross six parcels of state land and the Tongue River, which is managed by the Department of State Lands (DSL) as navigable streambed. In addition, the state fish hatchery at Miles City, which is managed by the Montana Department of Fish, Wildlife and Parks (FWP), would intersected and, depending on the final alignment, seven or eight Federal Aid System Highways (Figure 2), crossings would need to be permitted or reviewed by the Montana Department of Highways (MDOH).

B. State Action

Prior to initiating construction, the TRRC must obtain state approvals for rights-of-way, highway crossings, environmental impacts to air and water (if certain thresholds are met), and for impacting any potentially significant cultural resources. The proposed state action is the approval of the needed permits, leases, and rights-of-way for crossing state property with the railroad alignment. This document evaluates the impacts of these state actions.

Alternatives to the proposed action include the no action alternative and the approve-with-modification alternative. Under the no action alternative the agencies could either deny the various additional permits needed to construct

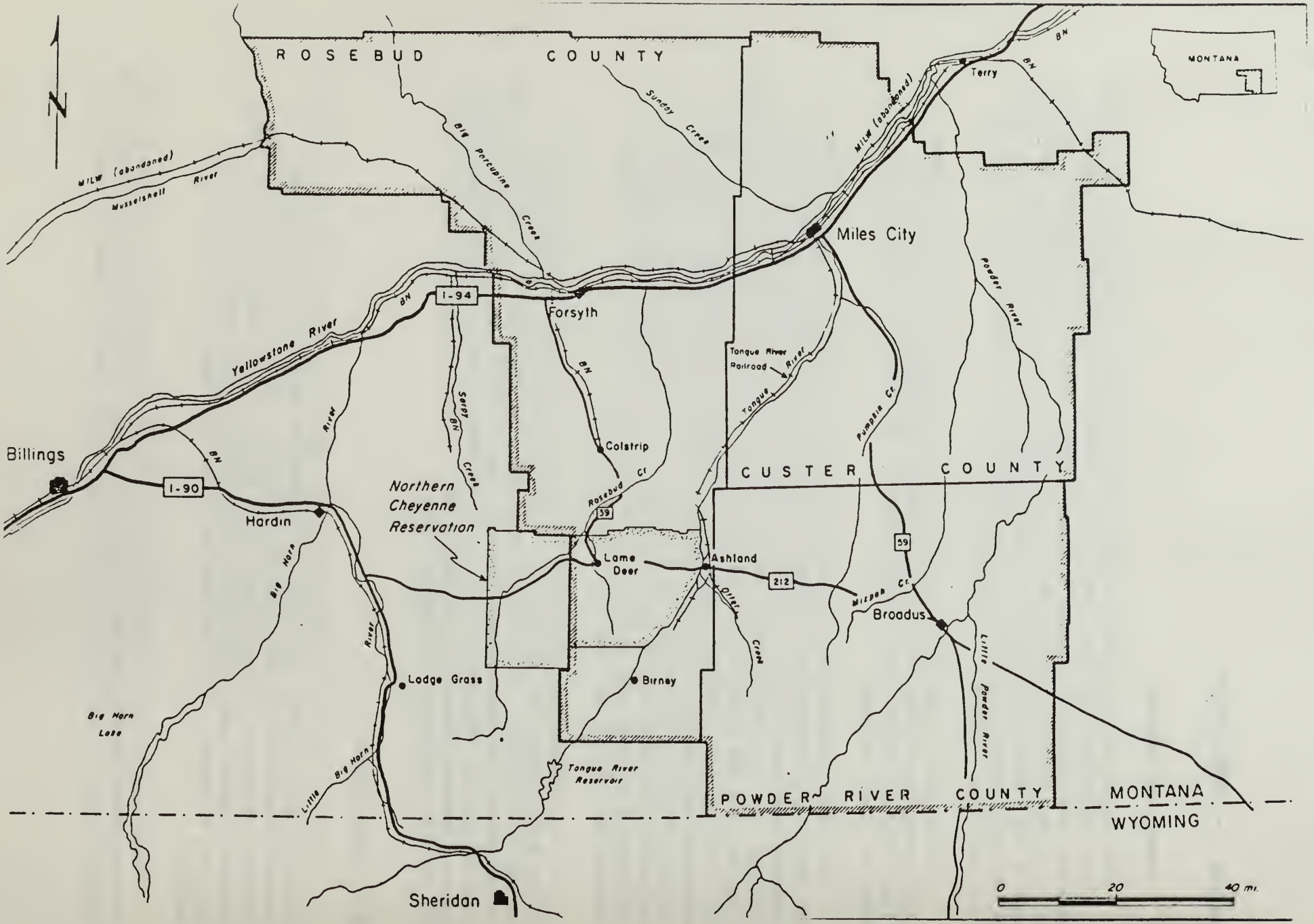

Figure 1 - Overview of the Tongue River Railroad Proposed Alignment

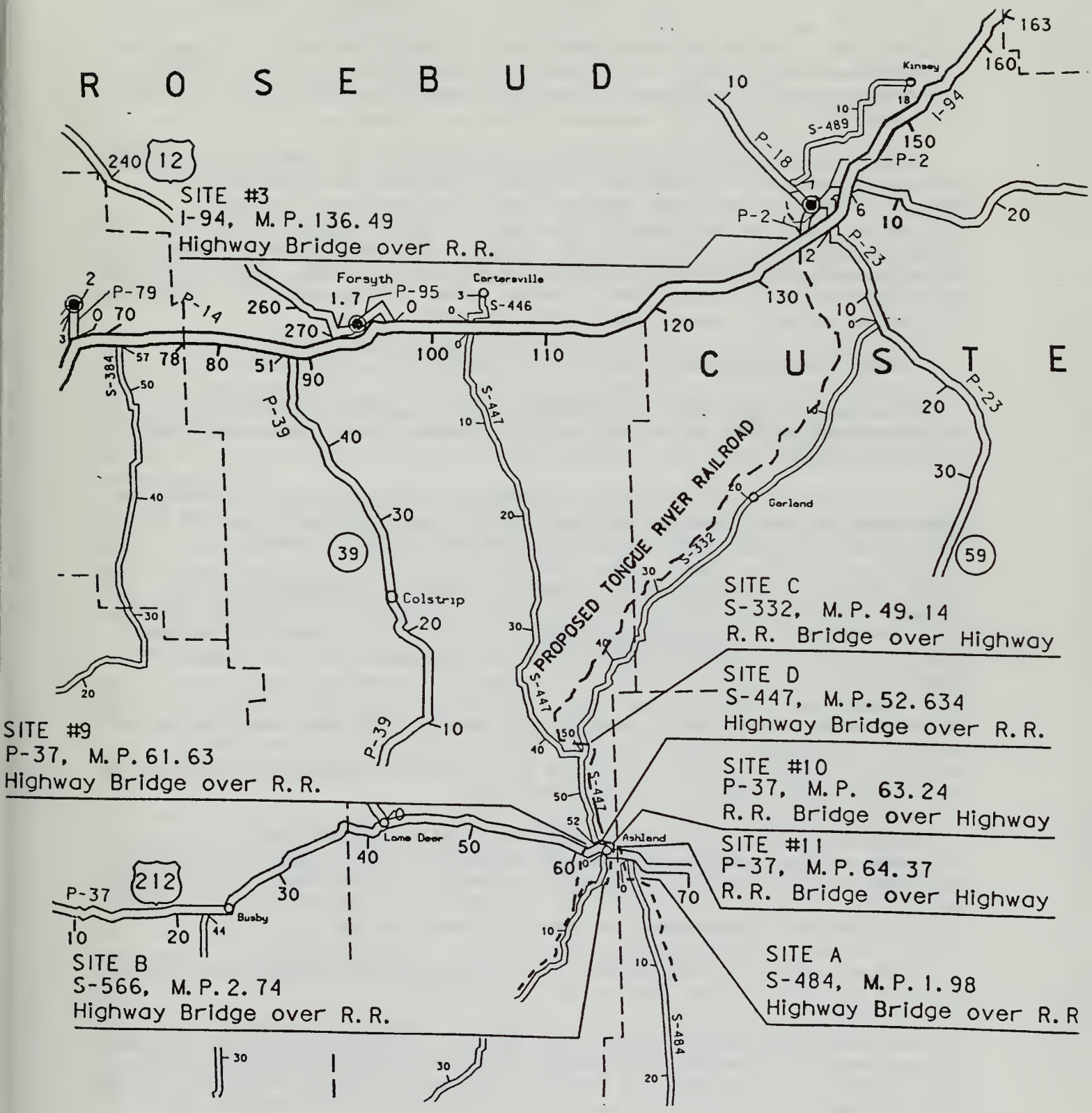

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Figure 2 - TRRC Roadway Crossings
As of March 1989

the railroad, or determine that permits were not needed (air). TRRC's alternatives, under the State's no action alternative would be to determine a different route, bypassing lands where state jurisdiction exists. Under this alternative, overall impacts would likely increase because of the increased disturbance caused by additional cut-and-fill needed to maintain grade under other alignment alternatives.

Under the approve-with-modification alternative, the agencies could adopt various mitigations, stipulations, or other conditions not proposed by the TRRC, in order to assure that impacts to State resources are minimized. In addition the agencies could modify the type of legal arrangements used to allow for the railroad's use of State Lands. That is, DSL and FWP could enter into either easement agreements or lease agreements with the TRRC. Each arrangement has advantages and disadvantages. However, under the approve with modification alternative, overall impacts would likely decrease.

Specific modifications discussed in this document include:

1. Requiring the approved weed management plan on state-owned lands be maintained and updated, as needed, with the Custer, Powder River, and Rosebud county weed boards.

2. In addition to the Memorandum of Agreement between SHPO and the TRRC, the state agencies would require that they receive copies of any site forms for any sites found on state-owned lands and the related inventory report.

3. To minimize the potential for impact to potential threatened and endangered plants, the agencies would require a survey of the alignment across state properties for Astragalus barrii, and if found (a) provide a technical report to the DSL and NRIS and (b) commit to compliance with the Endangered Species Act.

4. A detailed survey identifying acreage, location and appraised value of all severed, state-owned parcels which would be unusable to the state due to railroad construction and operation is needed. This information would then be used to finalize easement or lease conditions.

5. To assure the integrity of the physical plant, the FWP proposes to stipulate on the easement that TRRC repair and maintain hatchery facilities when damages occur that FWP finds are reasonably attributable to railroad activities. Historical data from similar hatcheries and construction records could be used as a reference point for such determinations.

6. A berm, similar to that between the railroad and the hatchery would be required between the pump station and the rail line.

7. In order to assure FWP is protected against a catastrophic event related to railroad activities, such as disruption of the hatchery water supply, TRRC would develop, and implement as needed, a contingency plan, consistent with the ICC's mitigation requirements (Appendix B), which takes into account specific hatchery concerns. Such concerns include timeliness and secondary damages.

8. FWP would require the use of nonchemical weed controls on hatchery property in order to assure no damage to fish production occurs.

9. Containment barriers, such as hypolon liners in borrow areas, would be required to assure that contaminants are prevented from reaching the hatchery facilities through ground or surface waters. In addition, TRRC's contingency plan would also be required to include a management plan whereby they will contain, clean up and compensate the state for any loss in production and immediate restoration of facilities should the hatchery become contaminated.

10. To maintain access to severed properties the construction and maintenance of ground level crossings would be required. In addition, access through the LARRS (Livestock, Agricultural, and Range Research Station) to the north side of I-94 would be negotiated by TRRC to provide unrestricted access to severed facilities.

11. Hatchery repair, maintenance, and fish production activities must have priority when TRRC/Hatchery conflicts occur. Therefore a traffic control procedure would be developed to resolve such conflicts. Prior to issuance of the easement, FWP and TRRC would negotiate hatchery-specific procedures to be followed in the event railroad activities were to interfere with repair and maintenance work at the hatchery. Such procedures would supplement TRRC's operational plan.

12. If it cannot be documented, through technical and engineering information, that vibrations from the railroad would not affect the stability of the primary water line, then an upgrade of the secondary water supply would be required in order to provide an adequate water supply to the hatchery should the primary source be disrupted.

13. TRRC would not be allowed to use the hatchery property, including any leased area or the easement, for storage or disposal or other uses unless prior written permission was received from FWP. TRRC would submit a management plan to address these concerns, with its application for lease or easement.

14. TRRC would negotiate termination or revision of FWP's existing lease.

15. Due to questions surrounding the impacts of harmonic vibrations on the hatchery, FWP would require adequate funding from TRRC to retain consultants of appropriate expertise to advise the Department during development, design and construction of the railroad.

16. When TRRC completes the final ferret survey consistent with ICC requirement's listed in Appendix B, the agencies would require copies of the inventory reports) for their files.

17. As a part of the reclamation plan, DSL would require deciduous trees to be planted on state lands in Sec. 36, T2N, R44E, in scattered locations to replace those lost by construction activity adjacent to the railroad. These trees would consist of tree species already present.

18. Riparian habitat lost in the riverbed in Sec. 27, T1S, R44E, Rosebud County, should be replaced with plantings of willows and like riparian species in several small areas upstream.

19. A cultural resources survey would be performed by the permittee along sections of the MDOH right-of-way that are undisturbed by previous construction. Any sites found will be recorded and evaluated. Should significant sites be discovered in the project impact area, the permittee would consult with the MDOH and the State Historic Preservation Officer (SHPO) to identify avoidance alternatives and appropriate mitigation measures.

20. All areas disturbed by railroad construction within the MDOH right-of-way would be revegetated as specified by the District Engineer.

21. When in the vicinity of the Federal Aid System: if a floodplain is crossed or encroached upon, or if any portion of the Federal Aid System would have to be relocated or rebuilt as a result of this action, a flood hazard assessment would be performed by the permittee and any impacts to Federal Aid facilities mitigated by the permittee. If local permit requirements exist for floodplain management, the permittee shall bear all the responsibility and expense of obtaining these permits.

22. The conditions specified in the agreement entered into by the Tongue River Railroad Company on December 22, 1988, with the Montana Department of Highways are hereby incorporated into all permits as applicable.

23. On cut-and-fill slopes steeper than 3:1 but less than 2:1, serrations should be made parallel to the slope to act as stable seed beds and sediment traps. Mulching and seeding should be conducted using hydroseeding/mulching equipment. Every attempt should be made to minimize foot traffic on the reclaimed slopes until vegetation is well established.

C. Agency Responsibilities

1. Department of State Lands (DSL)

Department of State Lands' rules (ARM 26.2.628 et seq.) implementing the Montana Environmental Policy Act (MEPA) (Title 75, Chapter 1, MCA) require the Department to prepare an Environmental Assessment (EA) to determine whether the Department's proposed action, that is, approval of TRRC's proposed construction of the railroad across state-owned lands including the Tongue riverbed, would significantly affect state-owned or -administered resources and to provide interdisciplinary evaluation of the proposed action. If significant impacts would occur which cannot be mitigated below the level of significance, the Department is required to prepare an Environmental Impact Statement (EIS) prior to taking action on TRRC's construction of the rail line and to determine appropriate conditions to be placed on the TRRC proposal if approved with modifications. In addition, DSL must determine what type of legal arrangements (lease vs. easement) should be used to authorize construction and operation activities on state-owned lands. The Commissioner has the authority to

determine lease conditions and issue leases whereas the Board of Land Commissioners has the final authority to approve conditions and issue easements.

DSL administers 5.2 million acres of school trust land under Title 77, MCA, and ARM Title 26. As a part of DSL's responsibility to conserve and protect the trust land's resources, DSL must evaluate any impacts to these lands and resources. These responsibilities are supplemented by the Montana Environmental Policy Act (Title 75, MCA) and the Montana Antiquities Act (Title 22). In addition to these responsibilities, DSL has also been designated lead agency with primary responsibility for coordinating this environmental analysis.

2. State Historic Preservation Office (SHPO)

The State Historic Preservation Office has the responsibility of cooperating with and advising DSL and other agencies when potentially valuable historical, archaeological, or other cultural resources are located within a project area (Montana Antiquities Act Sections 22-3-401 through 22-3-442, MCA, and the National Historical Preservation Act [P.L. 89-665 as amended and reauthorized E.O. 11593]). Advice given to DSL or other state agencies may include comments on an applicant's plan for mitigation of impacts to sites eligible for nomination to or listed on the National Register of Historic Places. The office also reviews the EA or EIS to ensure compliance with cultural regulations.

The State Historic Preservation Office is responsible for issuing antiquities permits for projects on state lands. The office also coordinates all compliance activities with the Keeper of the National Register or the appropriate Advisory Council on Historic Preservation office for sites believed eligible for listing on the National Register of Historic Places.

3. Department of Health and Environmental Sciences (DHES)

a. Air Quality Bureau

The Air Quality Bureau of DHES administers the Clean Air Act of Montana (Title 75, Chapter 2, MCA). Any proposed project with potential to emit more than 25 tons per year of any pollutant must obtain an air quality permit prior to construction. The applicant must apply Best Available Control Technology (BACT) to each emission source. The applicant must also demonstrate that the project will not violate Montana or Federal Ambient Air Quality Standards.

b. Water Quality Bureau

The Water Quality Bureau of DHES is responsible for administration of the Montana Water Quality Act (Title 75, Chapter 5, MCA), providing for the classification of surface waters, establishing surface water quality standards, and administering permit programs to control the discharge of pollutants into state waters.

4. Montana Department of Fish, Wildlife and Parks (FWP)

The Montana Department of Fish, Wildlife and Parks is responsible for administering various programs to protect, preserve, and propagate fish, game, fur-bearing animals, and game and nongame birds and to protect threatened or endangered species (Title 87, MCA). In addition, the Department manages parks programs and FWP properties, including fish hatcheries. With regard to the TRRC proposal, FWP has the authority to determine whether or not a lease or easement should be issued, and if issued, what types of conditions are necessary to be placed on the TRRC proposal.

5. Montana Department of Highways (MDOH)

The Montana Department of Highways sets highway construction standards, administers road building programs and assures that any construction impacting Federal Aid System roadways and associated rights-of-way does not impact public health and safety with regard to those roads (Title 60, MCA). Therefore, MDOH must permit the Federal Aid Interstate (FAI) and Primary (FAP) highway crossings and determine what conditions, if any, are necessary to be placed on the TRRC permits. In addition, the MDOH is responsible for reviewing crossings proposed for Secondary (FAS) roadways, although County Commissioners have final approval authority.

6. Interstate Commerce Commission (ICC)

The TRRC applied to the Interstate Commerce Commission in June 1983 for authorization to construct and operate a railroad from Ashland to Miles City. ICC responsibilities include evaluation of the proposal in a Draft and Final EIS, issuance of a Certificate of Need and Public Necessity, and approval of a master mitigation plan (ICC, 1985 (Appendix B), reproduced in Appendix B of this document). The master mitigation plan has not been significantly modified except for part 2.3 on page 10. Information in this EA will supersede all hatchery references in the Master Mitigation Plan. In addition to the ICC, as lead agency, the DSL, the US Department of Agriculture, the US Army Corps of Engineers, the City-County Planning Board, Miles City/Custer County, and the Powder River County Commission were cooperating agencies in the preparation of the ICC's EIS. The US Army Corps is responsible for 404 permits needed for crossing/disturbing the Tongue River. The USDA is responsible for permits/-leases/easements necessary to cross the Livestock and Range Experiment Station near Miles City. These federal actions were evaluated in the 1985 EIS. Alternatives evaluated in detail in the 1985 EIS included an Ashland to Colstrip alternative, a Moon Creek Alternative, and a Tongue River Alternative. The ICC did not require TRRC to adopt any of these alternatives.

7. Conservation Districts

The Conservation Districts are responsible for issuing 310 permits, under the Streambed and Land Preservation Act of 1975 (Title 75, Chapter 7, Part 1, MCA), which allows for disturbance of streambeds. The Rosebud Conservation District received four 310-permit applications from TRRC in January 1988. Concerns were expressed regarding impact to irrigation potential, damage from high flows due to constriction by bridges and abutments, the lack of demand for

coal, and lack of TRRC ownership of adjacent lands or easements. Two of these permits were granted in November 1988, based on the results of site inspections. The District has been unable to access the other sites for on-site inspections and thus the permits have not been issued. The Conservation Districts evaluate potential impacts to severity of flooding prior to issuing a permit. These one-year permits can be renewed only after a site inspection indicates no onsite changes have taken place which would affect previous conclusions. Powder River County has not received any 310 permit applications. Custer County received one application which was approved. Under each of these permits TRRC would riprap streambanks adjacent to railroad right-of-way.

D. Plan of Operations

The TRRC plans to construct an 89-mile rail line from Miles City to the Ashland/Otter Creek/Birney area through Custer, Rosebud and Powder River counties. The alignment and construction and reclamation standards have been previously evaluated by the ICC in the Final Environmental Impact Statement, Finance Docket No. 30186, Tongue River Railroad - Construction and Operation - of a line of Railroad in Custer, Rosebud, and Powder River Counties, Montana (1985). The four-year construction period would begin when land acquisition (leases and easements) and permits are acquired. This is in process now. Initially, Montco's Nance Mine would supply coal for hauling. Montco's Nance Mine was initially permitted November 15, 1984. This permit is up for renewal in November 1989. No other mines have been permitted in the area, although the Bureau of Land Management (BLM) has leased coal in the area. These leases were evaluated by the BLM in the Powder River Final Environmental Impact Statement - Coal (1981), and the 1989 Powder River I Supplement EIS.

The proposed Tongue River Railroad Company railroad would be constructed to contemporary mainline standards including the use of 132-pound continuous-welded rail (cwr), treated ties, and crushed ballast. The rail would be placed on a prepared grade and would occupy an average right-of-way of 200 feet. Except where otherwise agreed with specific landowners, the right of way would be fenced along both sides of the track. Access across parcels is being negotiated with the individual land owners. Phase II of TRRC's project design would identify specific arbitration procedures to be used in the event of disagreement. TRRC has already contacted state lessees about their access concerns, as a part of contacting all landowners along the proposed rail line.

Culverts would be asbestos-bonded, bituminous-coated, corrugated metal pipe and would range in diameter from 24 inches to 96 inches. Each would be of a sufficient diameter to withstand a 100-year flood event.

Traffic speeds through the hatchery would be about 25 miles per hour (mph), and higher elsewhere on the line.

During the various stages of construction TRRC would employ 50 to 570 individuals and approximately 500 individuals would be employed directly or indirectly during operation of the railroad. Some local hiring is planned. Approximately 40 percent of the railroad construction labor would be local and the remaining 60 percent would be nonlocal. It is estimated that 15 percent of

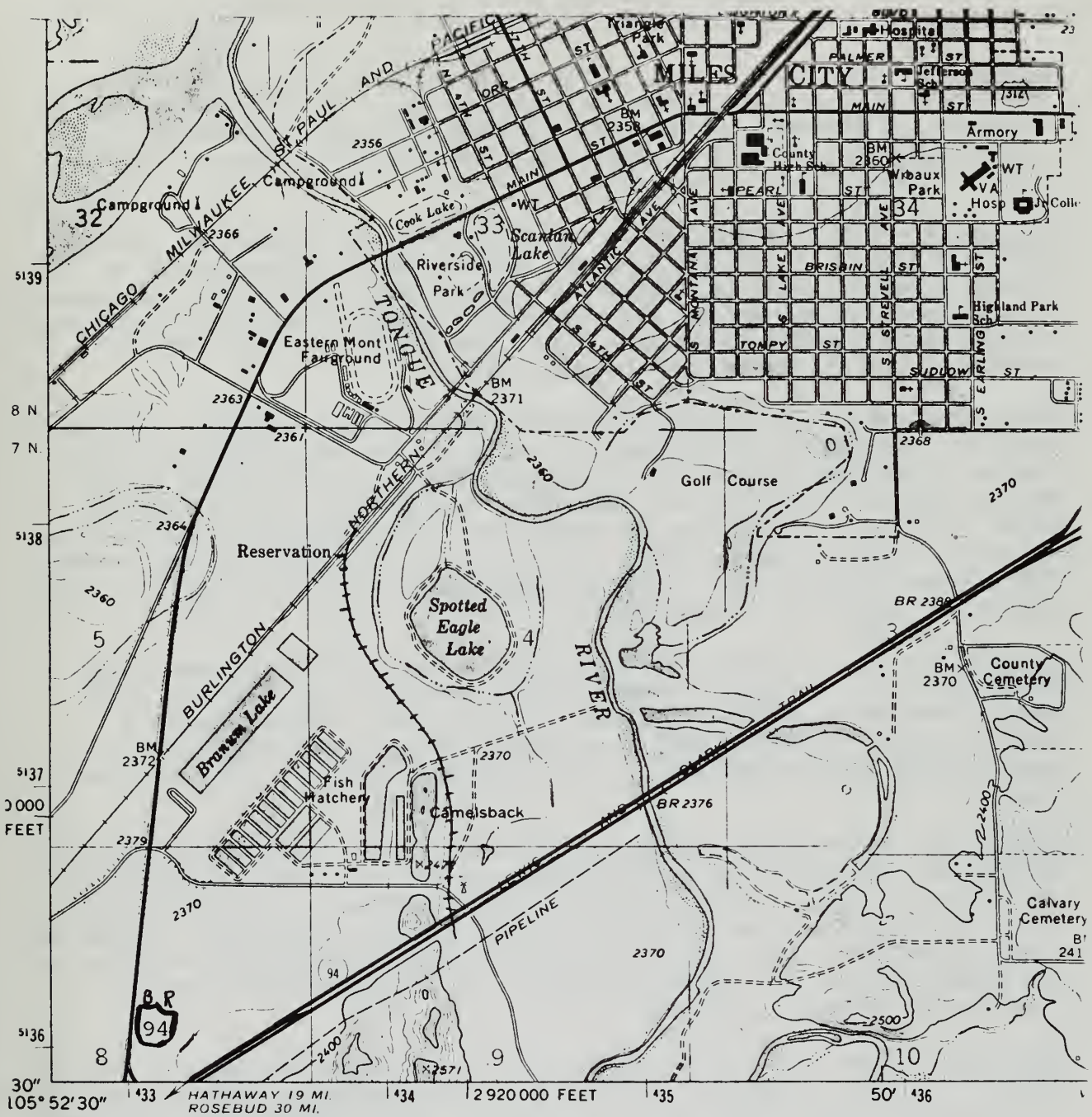
the work force will be Northern Cheyenne, living on the Reservation (ICC, 1983).

TRRC has provided procedures which assure both protection and rapid stabilization of disturbed areas so that they can be immediately returned to service. Such measures include the immediate mulching of exposed surfaces independent of plantings, and, in site-specific circumstances, the construction of a perimeter berm to control surface erosion flows. Additional detail is provided in Appendix B.

The Tongue River Railroad has applied for easements (rights-of-way) to cross several state sections of land. At present, there are six parcels of state-owned land administered by the Department of State Lands. On these sections of land, the average railroad right-of-way width is 400 feet. Two additional parcels, administered by the Department of Fish, Wildlife and Parks as a part of the Miles City Fish Hatchery, would be impacted by the proposed railroad. TRRC has applied for easements on these tracts. In addition, four highway crossing permits have been applied for from the MDOH (figure 2) and four roadway crossings under County jurisdiction would be affected by the proposed railroad. These tracts, parcels, sections, or roadway crossings have been designated as the following sites for the purpose of clarity throughout this document.

Site No. 1 - This site is the Miles City Fish Hatchery, the only warm-water fish hatchery in the State. The hatchery is located on the outskirts of Miles City, in T7N, R47E, consists of two parcels in Sec. 4 (W1/2) and Sec. 5 (E1/2), and is owned by the Montana Department of Fish, Wildlife and Parks (Figure 3). The rail corridor would be just east of the facilities at the site. TRRC proposes to place an engineered berm between the rail line and the facilities in order to reduce noise and mitigate any possibility of harmonic impact. FWP would administer any lease or easement issued on this tract. (See Figure 3).

Site No. 2 - This site, located in Sec. 5, T7N, R47E, is where the rail line would cross Business Route I-94 under the Milwaukee Road alternative which was evaluated in the original ICC environmental statement. This crossing is under the jurisdiction of the Montana Department of Highways. Two rail intersection alternatives evaluated by the ICC for Miles City included (1) construction of a new interchange with the Burlington Northern line and (2) rehabilitation of the old Milwaukee interchange to tie in with the Milwaukee line. The Milwaukee Road option has since been dropped by TRRC from consideration for a number of reasons. Since originally considered, the Milwaukee Road went out of business and the right-of-way has been sold to a number of individuals. Secondly, an in-depth review of what remains of the Milwaukee rail yard shows that the cost of rehabilitation is far more expensive than new construction at a different location. Hazardous waste is one of the many potential cost concerns of the TRRC. In addition, the total length of track to be constructed would be greater under the Milwaukee yard option, without providing any shipping advantages. The one remaining advantage of this alternative would be reduced rail traffic through downtown Miles City. However, based on the above information, the Department of State Lands has



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Polyconic projection. 1927 North American datum

Figure 3 - Miles City Fish Hatchery (Site #1) and I-94 Crossing (Site #3)

determined that the Milwaukee Road option is no longer reasonable or feasible with regard to State requirements. (See Figure 3)

Site No. 3 - This site, in Sec. 9, T7N, R47E in Custer County, at milepost (MP) 136.49 of Interstate Highway 94 near Miles City, is under the Montana Department of Highway's jurisdiction. The TRRC proposes to construct a grade separated crossing at this location, which would allow the railroad to pass under the highway. (See Figure 3).

Site No. 4 - This site would be a railroad right-of-way through Sec. 36, T4N, R46E, state-owned land in Custer County which is currently classified for grazing. TRRC proposes to construct one private cattle crossing. The proposed railroad right-of-way through the site is approximately 160 feet long and about one-half mile from the Tongue River Road. (See Figure 4). This site is administered by the Department of State Lands.

Site No. 5 - This site is also a railroad right-of-way through Sec. 16, T2N, R45E in Custer County, and is administered by the Department of State Lands. Section 16 is under multiple ownership, therefore two state parcels in this section would be crossed by the railroad. These parcels, used for grazing, would be crossed by 1,490 feet of right-of-way. TRRC would also construct two culverts to assure proper drainage. No crossings are proposed on this parcel. The proposed railroad right-of-way is approximately one and one-half miles from the Tongue River Road. (See Figure 5).

Site No. 6 - Sec. 16, T1S, R44E, would also be crossed by a railroad right-of-way corridor. However, the 5,660 foot corridor would be adjacent to the Tongue River Road. This tract of school trust land in Rosebud County is Administered by DSL and classified as grazing lands. TRRC proposes to construct one private crossing, a cattle underpass and eight culverts. (See Figure 6).

Site No. 7 - This Rosebud County site, in Sec. 27, T1S, R44E, is the bed of the Tongue River and it too is administered by the DSL. TRRC proposes to put in a 300-foot bridge crossing here which would be designed for the 100-year flood. At this point the rail line is approximately one-quarter mile from the Tongue River Road. (See Figure 7). TRRC has received both a 404 permit and a 310 permit from the Army Corps of Engineers and from the Custer County Conservation DIstrict, respectively, for this crossing.

Site No. 8 - This tract of DSL-administered grazing land is located in Sec. 36 (N1/2), T2N, R44E, in Rosebud County and would be crossed by 3,610 feet of railroad right-of-way. TRRC proposes to include four culverts along this right-of-way. The alignment of the railroad places it one and one-half miles from the Tongue River Road in this section. (See Figure 8).

Site No. 9 - This Rosebud County site is located in Sec. 10, T3S, R44E, west of Ashland, Montana, on U.S. Highway 212, also known as FAP-37, at milepost 61.63. This particular crossing is identified on the applicant's maps as the "NW option around Ashland." The TRRC proposes to construct a grade separated crossing at this location which will allow the railroad to pass under the

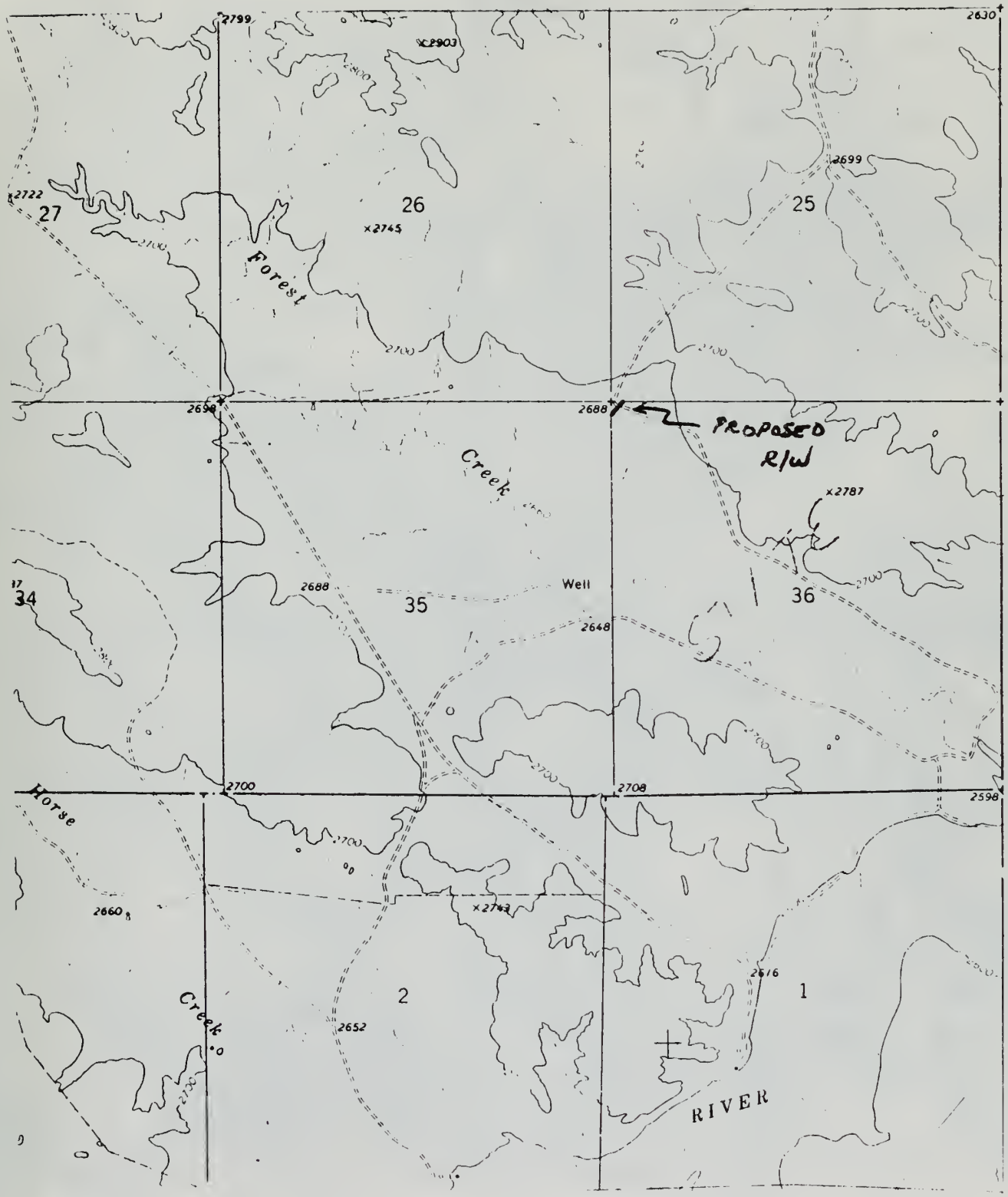


Figure 4 - Site No. 4: State Right-of-Way,
T4N R46E

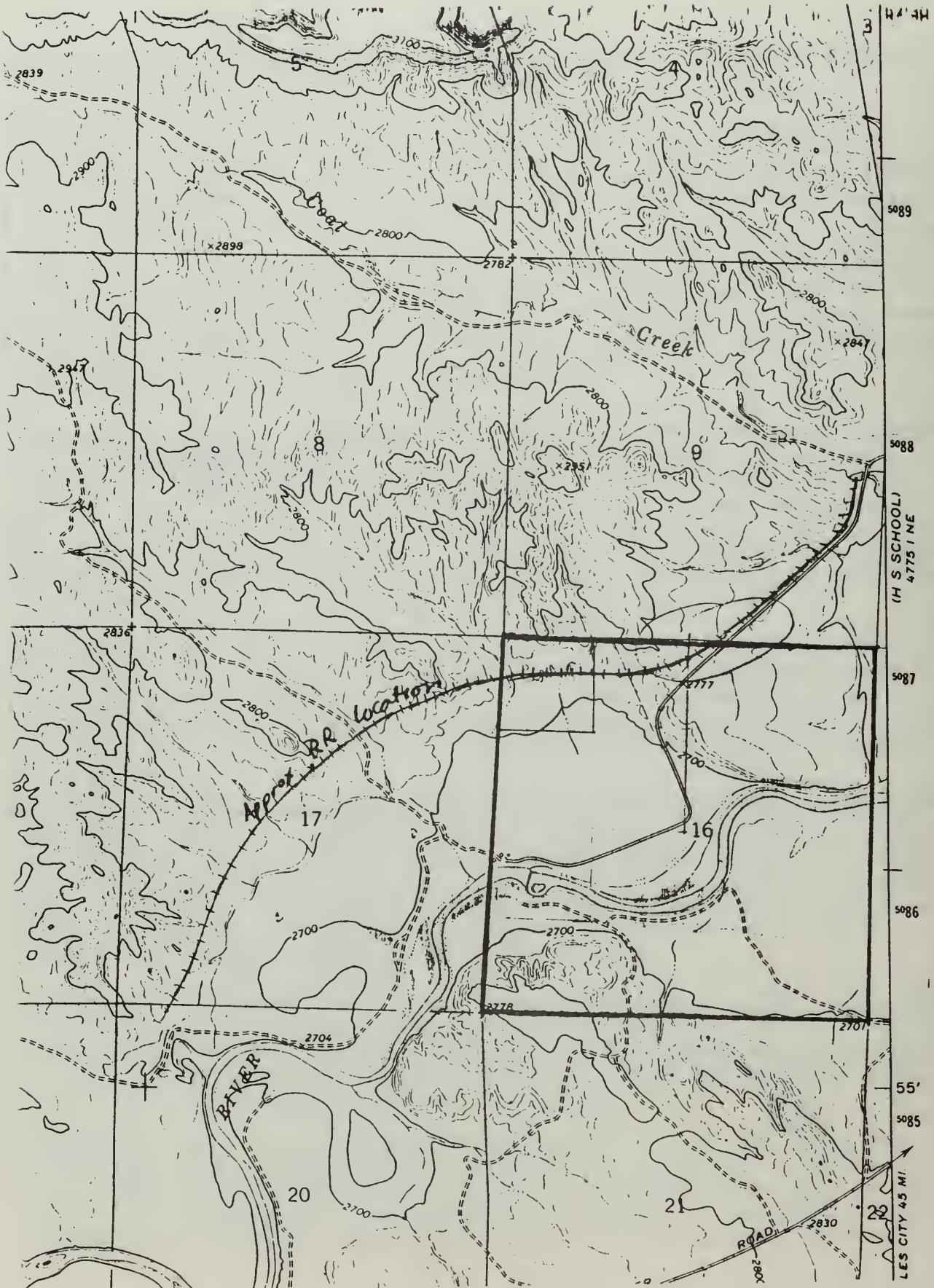


Figure 5 - Site No. 5: State Right-of-Way
T2N R45E

Figure 6 - Site No. 6: State Right-of-Way
T1S R44E

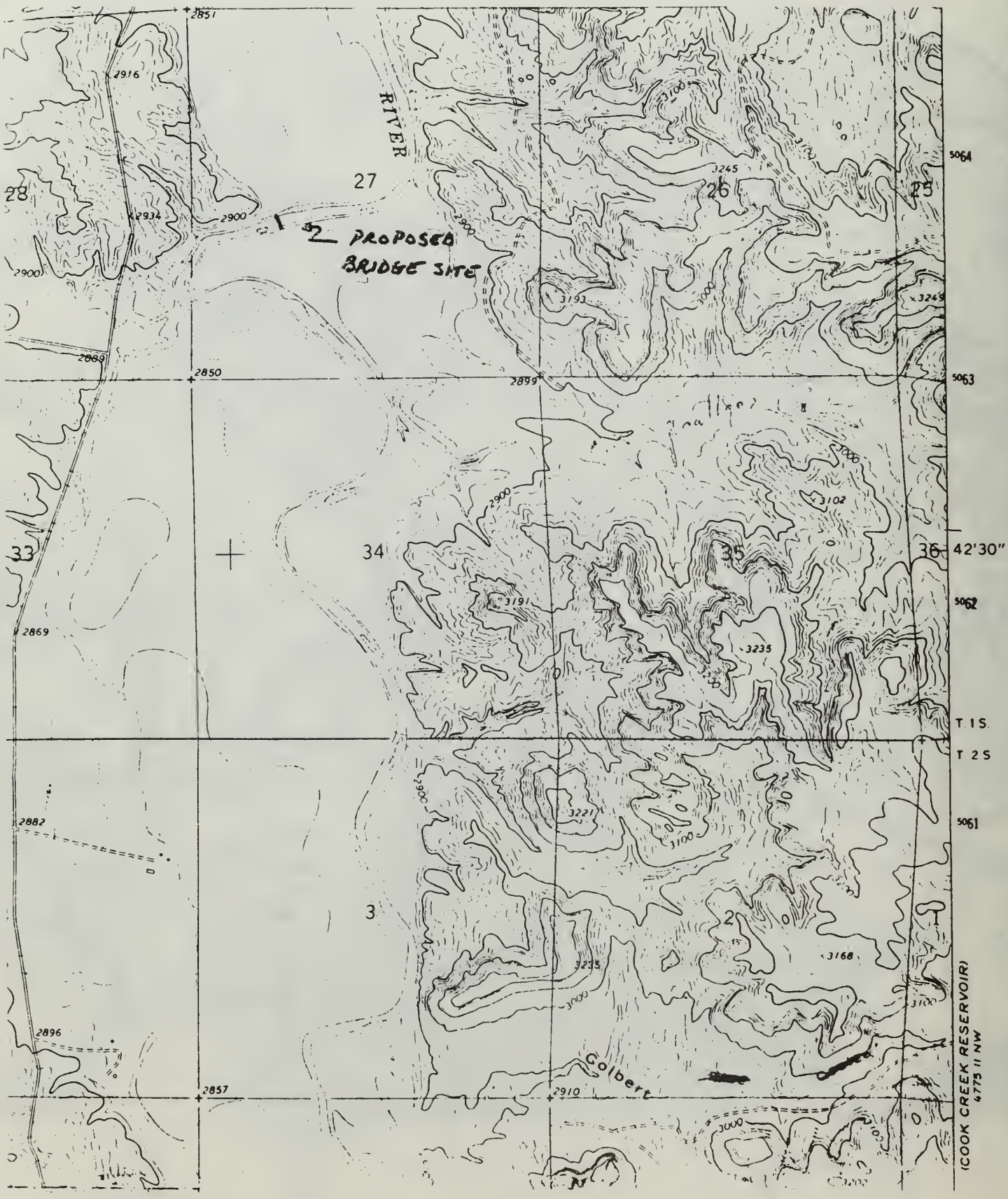


Figure 7 - Site No. 7: Tongue River Crossing
T1S R44E

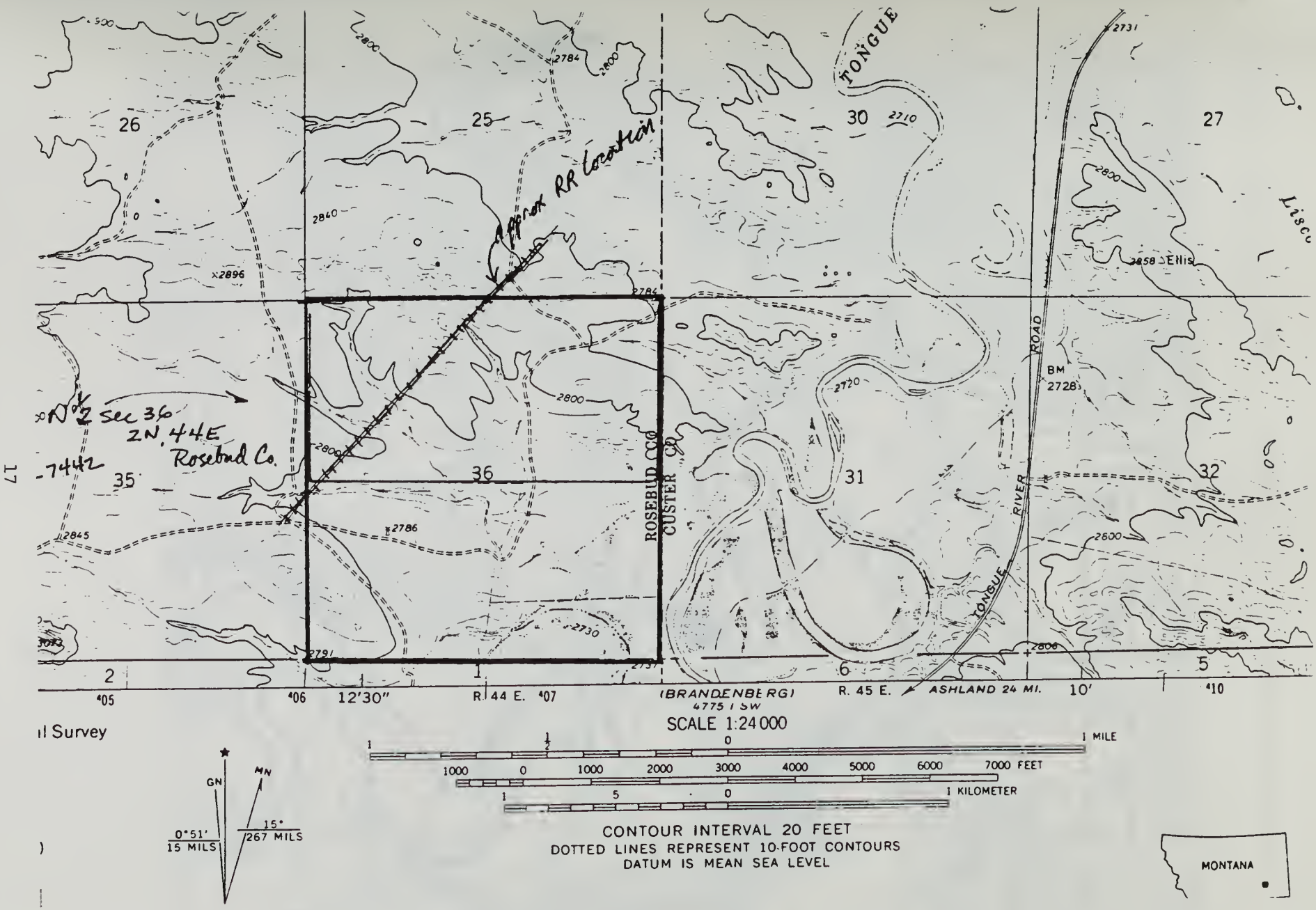


Figure 8 - Site No. 8: State Right-of-Way
T2N R44E

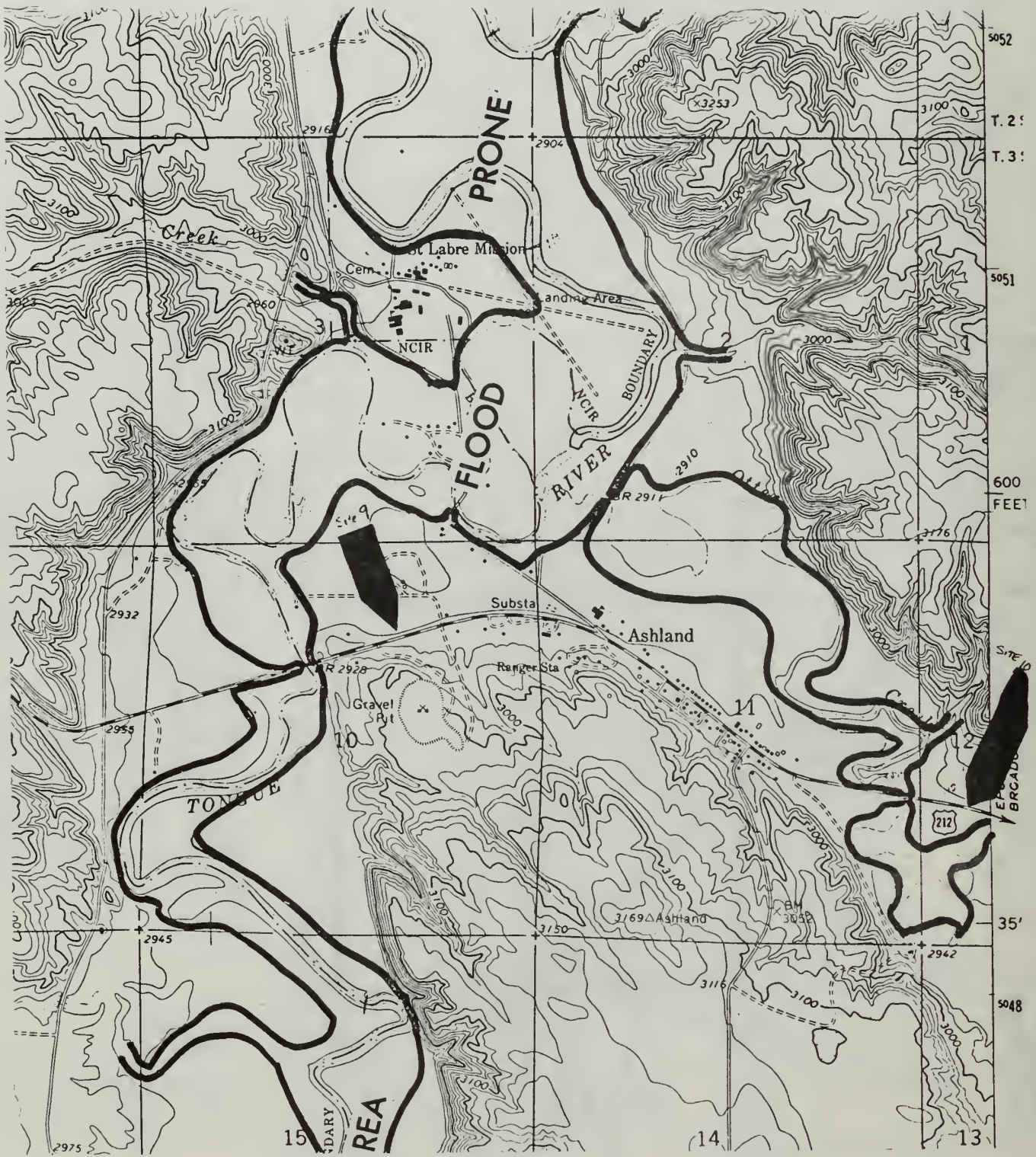


Figure 9 - Sites No. 9 and 10:
MDOH Roadway Crossings, T3S R44E

highway. This site is under the jurisdiction of the Montana Department of Highways. (See Figure 9).

Site No. 10 - This site is located in Rosebud County in Sec. 12, T3S, R44E, east of Ashland, Montana, on U.S. Highway 212, also known as FAP-37, at milepost 63.24. This site is identified on the applicant's maps as the "SE option around Ashland." The TRRC proposes to construct a grade separated crossing at this location which will allow the highway to pass under the railroad. This site is under the jurisdiction of the Montana Department of Highways. (See Figure 9).

Site No. 11 - This site is located in Sec. 18, T3S, R45E, east of Ashland, Montana, on U.S. Highway 212, also known as FAP-37, at milepost 64.37., approximately 2 miles east of Ashland. This Powder River County site is generally known as the "Otter Creek Crossing." The TRRC proposes to construct a grade separated crossing at this location which will allow the highway to pass under the railroad. This site is also under the jurisdiction of the Montana Department of Highways. (See Figure 10).

In addition to sites No. 2, 3, 9, 10, and 11 over which the MDOH has jurisdiction, several secondary routes will also be crossed by the TRRC. Although the MDOH does not exercise authority to approve or reject encroachment applications on any portion of these Secondary routes, Federal Aid and state money have been or may be invested into the development of these routes and the MDOH is charged with protecting this investment. The TRRC has submitted information on encroachments for the following Federal Aid Secondary (FAS) locations (Figure 2).

Site A - This site is located in Sec. 29, T3S, R45E, southeast of Ashland, Montana, in Powder River County, on Secondary 484 at milepost 1.98. The TRRC proposes to construct a grade separated crossing at this location which will allow the railroad to pass under the roadway. This site is under the jurisdiction of Powder River County.

Site B - This site is located in Sec. 23, T3S, R44E, southwest of Ashland, Montana, in Rosebud County, on Secondary 566 at milepost 2.74. The TRRC proposes to construct a grade separated crossing at this location which will allow the railroad to pass under the roadway. This site is under the jurisdiction of Rosebud County.

Site C - This site is located in Sec. 21, T1S, R44E, northwest of Ashland, Montana, in Rosebud County on Secondary 332 at milepost 49.14. The TRRC proposes to construct a grade separated crossing at this location which will allow the highway to pass under the railroad. This site is also under the jurisdiction of Rosebud County.

Site D - This site is located in Sec. 10, T3S, R44E, northwest of Ashland, Montana, in Rosebud County on Secondary 447 at milepost 52.63. The TRRC proposes to construct a grade separated crossing at this location which will allow the railroad to pass under the highway. This site is also under the jurisdiction of Rosebud County.

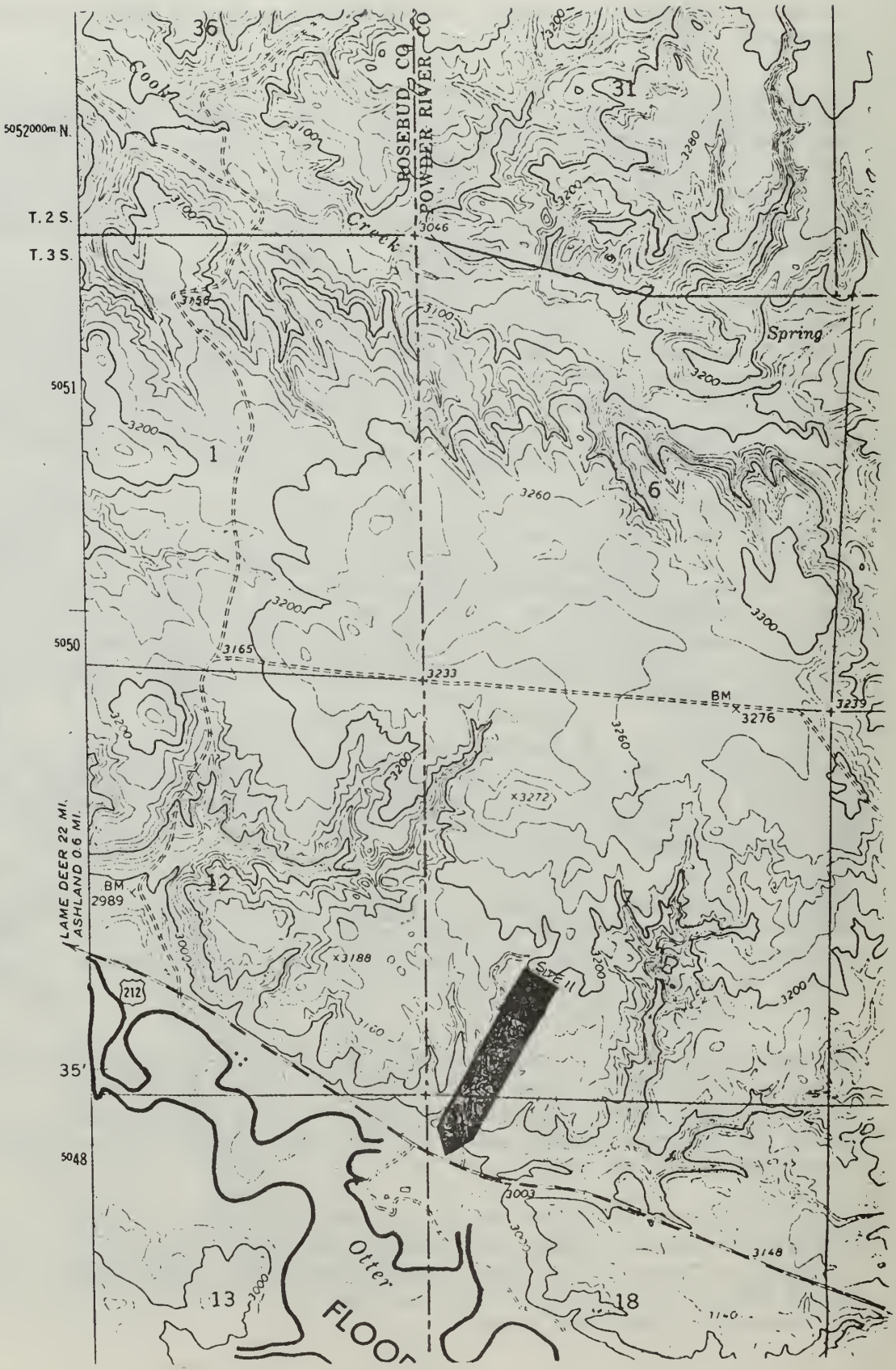


Figure 10 - Site No. 11: MDOH Roadway Crossing T3S R45E

In addition to the above secondary sites which have been identified by the TRRC as crossing locations, there is a possibility that a section or sections of secondary roadway may be relocated during construction of the railroad. Though no information on secondary realignments has been received to date from the TRRC, it is anticipated that the MDOH will review TRRC plans for secondary roadway realignment and supply comments to the counties prior to permits being issued by the counties or construction being initiated at the sites.

Although not under state jurisdiction, TRRC has applied for a number of 310 permits from the conservation districts. These one year permits allow for specific disturbance or encroachment activities on floodplains under the Streambed and Land Preservation Act. TRRC has applied for four permits from the Rosebud County Conservation District and received two of them. Custer County Conservation District received and approved an application for one permit. The Powder River County Conservation District received and approved one application for riprap.

Additional information is provided on each of these sites on a discipline-specific basis.

CHAPTER II - EXISTING ENVIRONMENT

A. Land Use

Approximately 90 percent of the land in the Tongue River Valley is devoted to agriculture. Over 90 percent of that land is rangelands used primarily for cattle grazing. About 7 percent is cropland and less than 3 percent is irrigated cropland (ICC, 1983)

Site No. 1: The 242.25-acre FWP site is used primarily for fish production. Those portions of the site not used for hatchery and related residential facilities are rangelands. A portion of the site is also leased locally. The adjacent city land uses are park and recreation lands included on Spotted Eagle Lake and park. A portion of the hatchery was purchased with Land and Water Conservation Funds, as explained in Wildlife, below.

Sites No. 2 and 3: These sites are both roadway crossings on the outskirts of Miles City.

Site No. 4: This school trust tract located in Sec. 36, T4N, R46E is currently classified as grazing land under state lease number 7397 and has been used for grazing livestock since the early 1900's. Total state ownership in this section is 640 acres. No other significant uses have been noted. Currently this tract of land has no legal access.

Site No. 5: This school trust tract located in Sec. 16, T2N, R45E is currently classified as grazing land under state lease number 7399 and has been used for grazing livestock since the early 1900's. Total state ownership in this section is 467.18 acres. Legal access to this tract would indicate limited recreational use as allowed by the lessee. The majority of this use would most likely be concentrated along the Tongue River corridor.

Site No. 6: This school trust tract located in Sec. 16, T1S, R44E is currently classified as grazing land under state lease number 4632 and has been used for grazing livestock since the early 1900's. Total state ownership in this section is 613.34 acres. Legal access to this tract would indicate limited recreational use as allowed by the lessee. The majority of this use would also most likely be concentrated along the Tongue River corridor.

Site No. 7: This tract is located in Sec. 27, T1S, R44E and consists solely of that portion of river bed lying between the low water marks of the Tongue River. Due to the inundated nature of this tract any historical land use is not applicable.

Site No. 8: This school trust tract located in Sec. 36 T2N, R44E is currently classified as grazing land under state lease number 7442 and has been used for grazing livestock since the early 1900's. Total state ownership in this section is 320 acres. There is no legal access to this tract. The S1/2 of this section which contains the Tongue River is deeded land.

Sites No. 9, 10, 11, A, B, C, and D: These are FAP and FAS roadway crossings.

B. Cultural Resources

No cultural properties have been recorded in the tracts of state lands to be affected by the railroad. The TRRC would be required, as a part of its right-of-way lease conditions, to survey the rail corridor.

Similarly, no cultural properties have been recorded for the highway crossings. However, Sites 9, 10, and 11 (identified above) were surveyed for cultural resources during the spring of 1989 in association with the development of the Ashland E and W roadway projects, which are scheduled for letting in 1990 and 1993 respectively. MDOH does not have any plans for any other highway projects which would overlap with the rail corridor. Therefore stipulations on the MDOH permits would include a survey requirement and would include requirements to mitigate the impacts of any rail construction activities on cultural resources identified at Sites 9, 10, and 11.

The TRRC report for all sites would be submitted to SHPO, as well as to agencies with jurisdiction on particular parcels. Specific mitigation plans would be developed in consultation with SHPO for any significant sites identified. The TRRC then would implement mitigation plans prior to initiating construction across or through a site. If during construction, TRRC locates a previously unrecorded site, TRRC is required to report to the agency and the SHPO. This requirement is based on agency and state and national historic preservation regulations.

C. Socioeconomics

1. Fiscal Environment

Existing economic conditions in Rosebud and Custer Counties are primarily agricultural based. According to the 1987 Census of Agriculture, the percentage of land in farms in Custer, Rosebud, and Powder River counties was 90.4 percent, 90.5 percent, and 79.3 percent, respectively. These percentages are high relative to the state percentage of 64.7 percent of the land area in farms (USDA, 1987). The primary employment in these counties is based in the cities of Miles City in Custer County, and Forsyth and Colstrip in Rosebud County, and in Broadus in Powder River County. The state sections of land currently are used for agriculture and grazing (trust land), and two partial sections of land are used by the Department of Fish, Wildlife and Parks for a fish hatchery site.

The primary revenue received from the trust lands is grazing revenues at a "C" AUM rate. This is the lowest grazing rate on state lands, due to poor range conditions of the grazing tracts. The 1989 minimum grazing fee is $3.89 per AUM. Assuming an average rate for the tricounty area of 4.78 acres per AUM, the average annual income received by the state is approximately $0.81 per acre. Therefore, approximately $396.80 of revenue is received per section. This revenue goes to the school trust fund. The interest from this fund, in turn, goes to the school/educational system.

State lands are administered using various legal documents. The types of documents used by the Department of State Lands include easements (which are also known as rights-of-way), leases and land use licenses (sometimes called special use permits). These documents determine the type of use allowed, conditions of use, and financial return. Each is described below.

Land Use Licenses are used for permitting temporary activities other than grazing or agriculture (farming). Although such licenses are renewable they are generally for small scale temporary activities. Holders of Land Use Licenses pay an annual fee.

Leases are issued primarily for grazing, agricultural, or mineral use, although other uses may be administered through a lease. Leases generally run for a period of 10 to 25 years and are renewable. Stipulations may be placed on leases and compliance is regularly monitored. Leases may be cancelled for violations of the lease conditions. A rental review of leases is conducted every 5 years to assure the trust continues to receive fair market value for use of state lands. At the time of renewal the stipulations are also reviewed to assure their continuing effectiveness and to make appropriate modifications.

Easements are issued for the long term, and the lands revert to DSL management only when the use for which the easement was intended has ceased. Conditions may be placed on an easement, however, monitoring and control are of lower priority than monitoring or control of lease conditions. When an easement is issued a one-time payment is made at the time of issuance. The disadvantage is that the long-term income to the school trust is usually less. Determining fair market value for an easement is more complex than determining the value for a lease. The advantage to an easement is that it is much simpler to administer in terms of payments and renewals. If the conditions of an easement are violated, the easement can be revoked.

Since the TRRC does not meet the land use permit criteria, and because of the disadvantages of administering leases, they have applied for an easement. Easements are used to permit long-term permanent activities.

FWP uses leases and easements to administer outside uses on the lands they manage. Its leases and easements are very similar to DSL. However, income from leases and easements to FWP goes to a trust fund, the income from which is used to manage FWP lands. TRRC has applied for an easement across the FWP lands.

Any encroachment onto MDOH right-of-way is normally regulated by an encroachment permit.

2. Miles City Fish Hatchery

Site No. 1 - The fish hatchery is a major area of concern regarding wildlife. Since the EIS was written by the ICC, considerable changes have occurred in the hatchery facilities as well as in the proposed alignment of TRRC line. Under the Milwaukee option, discussed above, the hatchery would not have been significantly affected. However, under the current Burlington Northern option the hatchery will be affected.

Tongue River Railroad Company (TRRC) has requested an easement to cross land controlled by the Montana Department of Fish, Wildlife and Parks (FWP) in Custer County, Montana. However a specific number of acres has not yet been defined. This land, as noted above, is now in use as a fish hatchery (Miles City Fish Hatchery) for the purpose of warm water fish culture. This fish hatchery is an important source of fish for the Montana Department of Fish, Wildlife and Parks stocking program. In addition, the hatchery was recently upgraded and several improvements were added. According to Robert Martinka, Montana Department of Fish, Wildlife and Parks, this is the only warm water fish hatchery in Montana and is critical for warm water species management. Without this facility functioning at its design capacity (Table 1), the state of Montana would be unable to meet existing and future demand for warm water fishing recreation, which is expected to increase from 316,700 angler days in 1984 to 407,900 angler days in 1990.

TABLE 1.--Design Capacity of the Miles City Hatchery

Number of Fish	Type of Fish
42,000,000	walleye fry
2,100,000	walleye fingerlings
5,000,000	northern pike fry
550,000	northern pike fingerlings
500,000	large mouth bass fingerlings
500,000	small mouth bass fingerlings
300,000	crappie
25,000	channel catfish
11,000,000	forage fish

Production of fry, such as walleye and northern pike, would be dependant on egg harvest. Fingerling production is the hatchery's first priority. Excess egg production and harvest above that needed for fingerling production, is then applied to fry production. Decreased fry production due to lack of egg harvest would not be attributable to impacts of the TRRC project.

a. History

The hatchery property is a combination of two land parcels. The largest parcel was obtained from United States Fish and Wildlife Service (USFWS) and the other was FWP property located in the Branum Lake area which has been improved and developed with Land and Water Conservation Funds (LWCF) administered by the National Park Service.

In 1983 FWP and the USFWS entered into an agreement whereby control and operation of the hatchery was transferred from USFWS to FWP. In 1987 the U.S. Government granted a land patent to FWP conveying the hatchery for fish management purposes, by a special act of Congress. A reversionary clause in the deed states the property will revert to the Federal Government if the

property is diverted for use other than operation of a fish hatchery. FWP is seeking a determination from BLM as to whether leasing hatchery property would constitute a diversion in use.

The other proposed parcel to be crossed by the easement is property developed with LWCF grants. The Land and Water Conservation Fund Act, Section 6(f)(3) places restrictions on these types of grants which prohibit FWP from transferring property acquired with LWCF funds without an in-kind exchange. TRRC has not indicated how they will address this issue.

b. Facilities

Between 1987 and 1989 the Department of Fish, Wildlife and Parks (FWP) has invested over $5 million in state license and federal assistance funds in upgrading the hatchery so it would be capable of providing fish needed to manage the state's warm water fish program.

Physical features on the property include pipelines for supply and distribution, ponds, buildings, raceways, numerous dikes, ditches, reservoirs and a prominent geological feature known as the "Camelsback." The Camelsback is adjacent to the ponds. The 30-year old hatchery is still in excellent condition and the FWP only added capacity with the recent upgrade. Some of the other hatcheries in Montana date back to 1908 and 1922 and are just now (1987-1990) needing major rehabilitation. However these hatcheries are cold-water hatcheries constructed with concrete facilities. The Miles City hatchery is constructed with earthen ponds. This is because many warm-water fish will not consume commercial fish foods. Therefore ponds must be constructed to duplicate a complete fish habitat. As a result there would be little or no maintenance history available for the hatchery.

The primary water supply to the hatchery is through a pipeline from the Yellowstone River, with a line from a pump station on the Tongue River as the secondary supply. The secondary supply is used to supply water to the hatchery in the event the primary supply is interrupted. The primary supply currently provides 4,500 gpm of water and the secondary supply provides 400-950 gpm. The secondary supply can provide water to the hatchery for emergency purposes only. Construction of the railroad will require crossing the primary supply twice and secondary supply once.

c. Leased Land

TRRC line would also encroach on land leased by FWP. A small annual income is provided the Department through this lease. Leases are transferred when abandoned or when a lease is purchased from its current holder. A new lease is then written for the new party.

d. Adjacent Land Uses

Currently, the adjacent land uses include park and recreation lands, and a veterinary office. None of these create any direct or indirect impact on the hatchery from trespass, weed control or other potential activities.

e. FWP Management Activities

No through public roads cross the hatchery property, although numerous internal roads exist. No grazing occurs, and FWP controls weeds by mechanical means, under the county's requirements pursuant to the noxious weed management act and erosion is controlled by seeding and through siltation traps.

3. Demographics

The existing demographic conditions in the area show that in Powder River County there are approximately 3.5 people per square mile, in Custer County there are approximately 2.2 people per square mile and 0.8 persons in Rosebud County. Housing conditions in Custer County show approximately 11.3 percent vacancy on real estate that is rented, and a 2 percent vacancy rate on real estate for sale. In Rosebud County conditions are fairly similar, with a 13.3 percent vacancy on rentals, and a 1.9 percent vacancy on land for sale.

4. Employment

Employment opportunities in the tricounty area vary considerably. The predominant sources of basic employment in Powder River, Custer, and Rosebud counties are, respectively, the agricultural sector, government sector, and energy development sector. Based on preliminary 1988 statistics, the annual unemployment rates for Custer, Rosebud and Powder River counties are, respectively, 4.7,8.3, and 3.1 percent. Estimated unemployment on the Northern Cheyenne Indian Reservation is 50 percent. These rates compare with the Montana rate in 1984 of 7.4 percent. The mine and the railroad propose to hire people from the local areas which should reduce unemployment in both areas. Additional detail is provided in the draft environmental impact statement. (Commerce Department, Bureau of Business and Economics.)

D. Vegetation and Soils

Vegetation along the Tongue River Railroad corridor falls into 10 general types: big sagebrush/grassland, deciduous tree/shrub, silver sagebrush/grassland, greasewood/grassland, skunkbush sumac/grassland, prairie, pine/juniper, breaks, agricultural, and aquatic. Any one vegetation type or combination of types may occur on the state tracts of concern. The following discussion is based on the Soil Conservation Service technical guide "Eastern Sedimentary Plains 10-14" Precipitation Zone." There are 22 range sites in this guide.

Site No. 1 This site is occupied by the fish hatchery adjacent to Miles City. The hatchery is vegetated with a variety of native and introduced species, shrubs and trees. Soils consist primarily of clays which may be unstable and susceptible to disruption due to vibration.

Site No. 2, 3, 9, 10, 11, and A: These sites consist of highway right-of-way containing paved asphalt road surface and disturbed land with predominantly introduced vegetation.

Site No. B, C, and D: These sites are secondary highway rights-of-way consisting of gravel road surfaces and disturbed land with predominantly introduced vegetation.

Site No. 4: The general vegetation type is a combination of big sagebrush/-grassland and silver sagebrush/grassland. The individual acreages of the vegetation types are not known. The soils are loams and this is a silty range site. Assuming an average condition rating of good, the livestock stocking rate is about 0.3 - 0.4 AUM/acre.

Site No. 5: The general vegetation type is a combination of big sagebrush/-grassland and silver sagebrush/grassland. The individual acreage of the vegetation types are not known. The soils are silt loams, silty clay loams, and clays. The range sites are silty, clayey, shallow clay and dense clay. Assuming an average condition rating of good, the livestock stocking rate is about 0.15 - 0.4 AUM/acre depending on the range sites.

Site No. 6: The general vegetation type is silver sagebrush/grassland. The soils are loams and this is predominantly a silty range site with negligible areas in shallow and very shallow range sites. Assuming an average condition rating of good, the livestock stocking rate is about 0.3 - 0.4 AUM/acre.

Site No. 7: This tract consists only of the bed of the Tongue River between the low water marks. There is essentially no vegetation.

Site No. 8: The general vegetation type is big sagebrush/grassland. The soils are loams, silty clay loams and rock outcrop complexes. This area is largely clayey and silty range sites. Lesser amounts of overflow, shallow, and shallow clay range sites are also found here. Assuming an average condition rating of good, the livestock stocking rate is about 0.15 - 0.45 AUM/acre, depending on the range site.

One potentially rare plant species has been reported from the area. This species, Astragalus barrii is known to occur on gumbo knobs and badlands topography. Although not currently protected under the Endangered Species Act, it is ranked a C2 in Montana, which means it is a federal candidate for listing. The agencies, by policy, protect candidate species. Very little is know about the health or range of the population at this time. However, fieldwork completed for the USFWS the past two summers has located populations east of the Tongue River.

E. Air Quality

The description of the existing air quality in the Tongue River region contained in the FEIS on the project is applicable to the specific site locations reviewed in this document. There have been no new significant sources of air pollution constructed in the immediate area since issuance of the FEIS (ICC, 1985).

To summarize, air quality in the areas crossed by the proposed rail line is generally very good, well below ambient air quality standards. The only major air pollutant point source is the Colstrip power generation facility which probably has only a minimal impact in the Tongue River Valley. Vehicular traffic on unpaved roads is the main source of particulate in the area. Vehicle exhaust emissions probably comprise the majority of gaseous pollutants.

There has been a recent change in the air quality standards. The federal and state ambient air quality standards for particulate matter are now based on particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM-10). The old standards were based on total suspended particulate (TSP), and therefore included larger particles. Previous monitoring and particulate analysis (including the FEIS) dealt primarily with TSP, while in the future, PM-10 will be the primary particulate parameter. Although there has not been any PM-10 monitoring performed in the Tongue River region, it is assumed that the area is generally in compliance with the new particulate standards. The exception to this may be in the immediate vicinity of highly used unpaved roads. This can cause localized areas of poor air quality, as was identified in previous monitoring in Ashland performed as part of the baseline monitoring program for the proposed Montco Mine.

The following is a site-specific discussion.

Site No. 1, 2, and 3: Given the proximity of these sites to Miles City, gaseous and particulate pollutant levels are probably slightly higher than in the more rural areas of the region. This is due to the fact that vehicle traffic, with resulting road dust and exhaust emissions, is significantly greater in the area. Other emissions associated with the increased population density, such as from home heating, would also be more significant.

Site No. 4: This site is typical of the rural setting with generally very good air quality. The most significant emission source is road dust resulting from traffic on the Tongue River Road. The overall impact of this intermittent type of source is minimal at the site. The proposed railroad right-of-way through the site is approximately one-half mile from the Tongue River Road.

Site No. 5: Same comments as Site No. 4. The proposed railroad right-of-way is approximately one and one-half miles from the Tongue River Road.

Site No. 6: Same comments as Site No. 4. This site would have somewhat more impact from the Tongue River Road since the proposed railroad right-of-way is adjacent to the road.

Site No. 7: Same comments as Site No. 4. The proposed railroad right-of-way is approximately one-quarter mile from the Tongue River Road.

Site No. 8: Same comments as Site No. 4. The proposed railroad right-of-way is approximately one and one-half miles from the Tongue River Road.

Site No. 9 and 10: These sites probably have slightly elevated pollutant levels related to their proximity to Ashland, similar to the discussion for Site No. 1. As previously noted, local particulate problems from vehicle

traffic have been observed in Ashland. Intermittent operation of the sawmill at Ashland also affects the air quality.

Site No. 11: Same comments as Site No. 9, although since this site is about two miles east of Ashland, air quality impacts related to the town would be much less.

Site A: This site is a paved road in a rural setting with traffic below the average for secondary roads. Because of these factors, the air quality at the site is probably very good, with the majority of gaseous pollutants attributable to vehicle emissions and particulate attributable to road dust.

Site B, C: These sites can both be characterized as gravel surfaced roadways in a rural setting with traffic below the average for secondary roads. Because of these factors, the air quality at these sites is probably good. Dust generated from vehicles driving gravel roadways is the major source of particulate and vehicle exhaust emissions comprise the majority of gaseous pollutants at these sites.

Site D: This site can be characterized as a gravel surfaced roadway in a built-up town site with high average daily traffic rates relative to the secondary system. Because of these factors, the site may be an example of periodic, localized poor air quality attributable to gaseous emissions from vehicles and particulate from gravel surfaced roadways.

F. Wildlife

This section addresses the existing environment within the railroad right-of-way corridor. Additional general information is available regarding the existing environment in the vicinity of the railroad. Two documents available for additional information are: U.S. Interstate Commerce Commission, "Environmental Impact Statement, Finance Docket No. 30186; Tongue River Railroad Company- Construction and Operation", 1983., and the Preliminary Environmental Review for the State of Montana, done by Westech, Inc., Helena, Montana.

In consultation with the Department of Fish, Wildlife and Parks, the Department has determined that no threatened or endangered species occur on state tracts within the vicinity of the proposed rail corridor. In addition, there are no prime wintering areas or protected habitats on these state tracts. However, the Tongue River is a fishery of some importance to the region and it will be crossed by the railroad. Therefore the FWP has worked closely with the Army Corps of Engineers to identify appropriate mitigation for those construction activities which would affect the fishery.

Site No 1: The fish hatchery does not contain wildlife of special interest aside from the fish eggs, fry and fingerlings. Because the hatchery is basically a state project to improve the state's warm water sport fishery, details are provided under socioeconomic.

Sites No. 2, 3, 9, 10, 11, A, B, C, and D: These road crossings do not provide

wildlife habitat. Road kills are currently insignificant because of the low level of traffic on theses roads.

Typical wildlife of special interest within the right of way corridor are sharptailed grouse, sage grouse, red fox, coyote, turkeys, mule deer, whitetail deer, antelope, red tailed hawks, golden eagles and merlins. These species do not necessarily live in the right-of-way corridor but migrate through during a normal year.

Site No. 4: This tract of land is located within a part of Montana that is made up of dry drainages, badlands, and valleys. The railroad will be cutting through the NW1/4NW1/4 of this tract which is a silver sagebrush/western wheatgrass complex. It is open ground with no drainages, or topographical relief. Fence lines from adjacent sections meet at the northwest section corner, but otherwise this part is unfenced.

Wildlife that inhabit this locale are sharptailed grouse, sage grouse, prairie dogs, migratory antelope, mule deer, and whitetailed deer. From all studies and research there has been no evidence of blackfooted ferrets in this vicinity. Raptors of special interest that hover the area are red-tailed hawks. Turkeys are known to live east of this area, and might migrate across from time to time.

Site No. 5: This tract also falls within the dry drainages, badlands and valleys geography of Montana. The two specific 40 acre tracts that will be crossed by the railroad lie in the NW1/4NW1/4, and NW1/4NE1/4. The Tongue River ecosystem is about one half mile to the south of this locale. The dominant vegetation for the railroad corridor is a shrub/grass complex. Greasewood and Wyoming big sagebrush make up the dominant shrubs, while western wheatgrass is the climax grass. The topography consists of rolling hills to flat areas.

Wildlife that inhabit this locale are sharptailed grouse and sage grouse. Migratory wildlife include mule deer, whitetailed deer, antelope, red fox, coyote, and turkeys. Raptors known to hover the locale include redtailed hawks, merlins, golden eagles, and various others.

Site No. 6: The railroad corridor crossing this tract parallels the edge of the Tongue River Road which is a major county transportation route. The Tongue River is approximately 200 feet off of the right of way corridor in the middle of this parcel. The right of way will be crossing a vegetative type consisting of grassland/shrub communities. The climax species within this type are; silver sagebrush, and western wheatgrass. A lot of forbs also inhabit this vegetative community which most likely is caused by the moisture from the river. No riparian communities will be affected by the r/w corridor.

Typical wildlife of special interest are; whitetailed deer, mule deer, antelope, mink, weasel, red fox, coyote, badger, golden/bald eagles, merlins, redtailed hawks, turkeys, sharptailed grouse and sage grouse.

Site No. 7: The only portion being addressed in this parcel is the railroad bridge that will be crossing the Tongue River. The upland banks of the river

consist of the deciduous tree/ shrub vegetative type. Primary amongst the trees is plains cottonwood, green ash, box elder, chokecherry, buffaloberry, silverberry, russian olive, and willows. The aquatic ecosystem has been addressed in other publications as referred to earlier.

Wildlife of special interest within this habitat type are; whitetail deer, mink, muskrat, beaver, songbirds, golden/bald eagles, redtailed hawks, merlins, and other raptor species. Turkeys are also known to nest within the riparian ecosystem of the Tongue River. Migratory species include; mule deer, antelope, sharptailed grouse, sage grouse, red fox, coyote, and badger.

Site No. 8: This tract of land starts to get into a little higher elevation and better precipitation than tracts to the north. The topography takes on a hilly/breaks nature, in this locale. The vegetation consists of scattered Wyoming big sagebrush, and western-bluebunch wheatgrasses. The bunchgrasses tend to create openings along with range conditions which enable the prickly pear cactus to come in quite heavily. An intermittent tributary of the Tongue River will be crossed by the railroad right-of-way corridor. A few hardwoods exist within this tributary, mainly cottonwoods, green ash, box elder, chokecherry, buffaloberry, and russian olive. The chief habitats associated with wildlife within the right-of-way are grassland/shrub, and deciduous tree/shrub types. The railroad right-of-way will be crossing the northwest quarter of the section in a northeast/southwest direction. The Tongue River lies approximately one half mile to the southeast of the railroad crossing.

G. Transportation

The proposed TRRC rail route is intersected by and/or adjacent to a number of primary and secondary roadways, as well as intersecting private roads on individual parcels. These are summarized by site number, below.

Site No. 1: Although no public roadways exist in this tract, FWP's access to the water supply and pumping facilities which support the hatchery would be severed. This is discussed in detail under Wildlife, section F.

The proposed action including the northwest or southeast options around Ashland and the Milwaukee Road or Burlington Northern options in Miles City will cross Federal Aid System roadways at the following sites. Average daily traffic figures, in Table 2 below, are for the milepost locations supplied by the applicant in preliminary encroachment permit applications. (Note: The applicant has not submitted a preliminary encroachment permit application for site 2. For this site, the ADT is based on the location scaled from maps produced by the applicant.)

Site No. 2 - This route provides access for inter- and intra-state travelers to the businesses and services of Miles City.

Site No. 3 - Interstate 94 in association with I-90 is the major east-west corridor through the state and is essential for inter- and intra-state commerce and travel.

Site No. 9 - This site would be crossed if the TRRC opted to route the rail line to the northwest around Ashland.

Site No. 10 - This site would be crossed if the TRRC routed the rail line to the southeast around Ashland.

Site No. 11 - This site is the Otter Creek Crossing.

TABLE 2.-- Average Daily Traffic Counts for Primary Roads (1987)

Site No	Legal	Route	Type of Road*	Count
2 -	Sec. 5, T7N, R47E	Business Route 94 (FAP-2)	Connecting Link	1320
3 -	Sec. 9, T7N, R47E	Interstate 94 (MP 136.49)	Interstate	2850
9 -	Sec. 10, T3S, R44E	U.S. Highway 212 (FAP-37, MP 61.63)	Minor Arterial	1150
10 -	Sec. 12, T3S, R44E	U.S. Highway 212 (FAP-37, MP 63.24)	Minor Arterial	840
11 -	Sec. 18, T3S, R45E	U.S. Highway 212 (FAP-37, MP 64.37)	Minor Arterial	840

*Type of Road refers to the MDOH Functional Classification of the road.

Sites 9, 10 and 11 all intersect U.S. Highway 212 (FAP-37) which is the major east-west corridor in the southeastern region of the state. It functions as a minor arterial connecting Broadus, the county seat of Powder River County, with Interstate 90 to the west. It is an important regional link (via I-90) for the movement of agricultural goods between the communities of Broadus, Ashland, Lame Deer and Busby to the shipping center of Billings, the largest city in the state.

In addition to the above crossings of Federal Aid Interstate and Primary routes, the proposed action also crosses the following Federal Aid Secondary routes. Mileposts for these crossings were supplied by the TRRC and summarized in a letter to the MDOH dated March 2, 1989.

The secondary routes, summarized in Table 3, provide local access to the residents of the Tongue River and Otter Creek drainages. While these routes are under the day-to-day jurisdiction of the counties, the MDOH is considered the custodian of the entire Federal-Aid System within the state by the Federal Highway Administration. As such the MDOH reserves the right to review and comment on plans for the crossing of these Federal-Aid System roads, even

though any permits issued for crossing these routes will be issued by the relevant counties.

TABLE 3.-- Average Daily Traffic Counts for Secondary Roads (1987)

Site No	Legal	Route	Type of Road*	Count
A	Sec. 29, T3S, R45E	FAS 484 milepost 1.98	Collector	150
B	Sec. 23, T3S, R44E	FAS 566 milepost 2.74	Collector	180
C	Sec. 21, T1S, R44E	FAS 332 milepost 49.14	Collector	50
D	Sec. 10, T3S, R44E	FAS 447 milepost 52.63	Collector	840

*Type of Road refers to the MDOH Functional Classification of the road.

In addition to the Federal Aid System roadways that will be crossed by the proposed action, the Environmental Impact Statement prepared by the ICC (1985) identifies down line communities that will experience transportation interruptions and operational delays to general traffic and emergency vehicles.

Sites No. 4, 5, 6, 7, 8: No rights-of-way on state lands would be severed by the railroad, although movement of cattle and use of two-track roads may be affected. Specific mitigations, as noted under land use, would be negotiated with DSL's lessee and DSL for each separate parcel.

H. Engineering/Topography

The following is a site specific discussion of the topography of the sites to be impacted. In addition a summary of construction details is provided for each site.

Site No. 1: This site includes the hatchery and portions of Miles City where the intersection of the TRRC with Burlington Northern would occur. The topography is level except for a geologic feature known as the Camelsback. The Camelsback is approximately 100 feet high and has side slopes of 15 to 50 percent. Its slope stability is unknown. However, it is about 1,000 feet from the base of the slope to the ponds. The railroad may encroach on the toe of the hump, depending on the final alignment. Best engineering practices would have to be used.

Site Nos. 2, 3, 9, 10, and 11: All sites listed are primary roads except Site No. 3 which is Interstate 94. These sites are existing roadways maintained by the Montana Department of Highways incorporating drainage control features.

All sites are presently paved with horizontal and vertical curvatures that conform to the Montana Department of Highway's standards that were in effect at the time of construction.

Site No. 4: The existing topography can be defined as a gentle sloping area. There is one private road that would be severed. Total acreage within the proposed right-of-way is roughly one-half acre.

Site No. 5: Site No. 5 is actually two sites located in Section 16 severed by private land. The existing topography extends along areas showing relief. Maximum elevation differences above and below track grade is 30 feet and 25 feet respectively. The area located in the NW{NE{ is an upland feature without drainages crossing the proposed railway path. However, the area located in the NW{NW{ has one larger coulee and several smaller drainages crossing the proposed path. Total acreage with the proposed right-of-way is 7.4 acres.

Site No. 6: The existing topography extends along areas showing relief. Maximum elevation differences above and below track grade is 25 feet and 30 feet respectively. Roe and Cooper Creek crosses the path of the proposed railway along with several large coulees. A private road exists running parallel to Roe and Cooper Creek which would also be severed. The proposed right-of-way travels parallel to, and uphill from, the existing Tongue River Road. Total acreage within the proposed right-of-way is 21.1 acres.

Site No. 7: Site No. 7 is a river crossing on the Tongue River. There are no islands located in the channel specific to the crossing.

Site No. 8: The existing topography extends along areas showing relief. Maximum elevation differences above and below track grade is 25 feet and 52 feet respectively. There are several larger drainages crossing the proposed railway path. Total acreage within the proposed right-of-way is 15.5 acres.

Site No. A - This site is an existing roadway maintained by Powder River County. The site is paved, incorporates drainage control features and has horizontal and vertical curvatures that conform to the Montana Department of Highways' standards.

Site No. B, C, and D - These sites are existing roadways that are maintained by Rosebud County. The sites are unpaved, gravel surfaced roadways. Design standards and/or incorporated drainage control features are unknown as the sites were constructed by Rosebud County.

I. Hydrology

Three water-related permits are required for the construction of the rail line. These are the Army Corp's 404 permit, the Conservation Districts' 310 permit, and DHES's water Quality permit. Two major drainages would be affected by the railroad, the Tongue River and its tributary Otter Creek. The following site-specific discussion summarizes water quality by site number.

Site No. 1: Water quality impacts to the hatchery would be limited to slight increases in erosion and sediment levels in runoff during construction. Because of the proposed berm between the rail line and the hatchery ponds, elevated levels would be expected to occur only until the face of the berm became revegetated. During operation of the rail line impacts would be expected to occur only in the event of contamination by chemicals or other toxic materials in the event of a derailment. Herbicides used for weed control are a source of chemicals that are highly toxic to fish and cannot be applied in the vicinity of the hatchery. Fingerlings and fry are very susceptible to chemical toxicity from herbicides. If an easement or lease is granted to the TRRC, the only acceptable means of vegetation control would be mechanical.

Site No. 2, 3, 4, 5, 11, A, B,and C: There is no known surface or groundwater in close proximity to these sites.

Site No. 6: No site-specific water quality data has been collected at this site. In general, the water quality of these intermittent and ephemeral drainages is dependent upon such variables as the origin of parent materials, soil textures, topography and precipitation events.

Site No. 7: The Tongue River at this site is classified as B-3. These waters are suitable for drinking, culinary and food processing purposes, after conventional treatment; bathing, swimming and recreation; growth and propagation of non-salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply. In general the chemical quality is highest during periods of increased flow, when the physical quality of the water is the lowest as a result of greater concentrations of suspended sediment.

Site No. 8: No site-specific water quality data has been collected at this site. In general the water quality of these intermittent and ephemeral drainages is dependent upon such variables as the origin of parent materials, soil textures, topography and precipitation events.

Site No. 9, 10, and D: These road crossings are the following approximate distances from the Tongue River: Site No. 9 - 900 feet; Site No. 10 -1,500 feet; and Site No. D - 650 feet.

CHAPTER III - CONSEQUENCES OF THE PROPOSED ACTION

A. LAND USE

Sites 4, 5, 6, and 8 are native range grazing tracts which have remained essentially unchanged since the first cattle herds came to Montana. Based on location, ownership, and access it is unlikely that the current land use will substantially change. A possible exception to the current use could be oil and gas development and increased recreational use. The pursuit of these activities could be hampered but it is not anticipated they would be precluded if the railroad were constructed in the areas indicated on the design sheets.

Other areas of concern would be the introduction of noxious weeds and the increased incidence of wildfire due to sparks from train wheels and locomotive exhaust. Both potential problems could be lessened to a large degree if an active vegetation control program were used along the right-a-way employing both mechanical methods and appropriate herbicides. The TRRC would be required to maintain and update, as needed, an approved weed management plan with the Custer, Powder River, and Rosebud county weed boards.

Increased livestock mortality would be lessened by TRRC's fencing the right-of-way and more importantly adequately maintaining the fence after it is built. Livestock underpasses can be constructed to facilitate movement of livestock, however placement and number of underpasses would be done in cooperation with the livestock producer who is familiar with the travel habits and needs of the livestock. The TRRC would be required to contact each state lessee in determining the appropriate number, size and placement of stock and vehicle underpasses on the state leases, under current leasing requirements.

Disruption of existing fence can be accommodated by construction of properly designed cattle guards. TRRC would be required to contact each state lessee regarding the need for cattle guards.

Site No. 1: The proposed railroad alignment crosses the eastern edge of the hatchery. The alignment will cross water lines, displace the sewage lagoon and probably encroach upon the Camelsback. Impacts could cause loss of water, disruption of facilities, reduce potential production, and cause fish loss due to chemical spills, weed control, derailments and disruption of water supply. If loss of production occurs, this could be viewed by Federal Aid officials as a loss of control and would place the entire fisheries federal aid funds in jeopardy.

Two land reversion issues involved with hatchery properties must be adequately resolved by TRRC. They involve properties deeded to FWP by the Bureau of Land Management and land that was developed by the LWCF.

The proposed easement will cross property developed with LWCF grants. TRRC must resolve this issue with the National Park Service and make restitution as provided by the Land and Water Conservation Fund Act, Section 6(f)(3). Deeded properties revert to the BLM if a change of uses occurs. TRRC must

resolve these issues with federal agencies in a manner so FWP will not lose any rights to the property after an easement or lease is granted.

In addition, a portion of the proposed easement crosses an existing lease area. TRRC would have to negotiate termination or revision of the lease from the lessee prior to obtaining a lease or easement from the FWP for the parcel currently leased to the vet.

Site No. 4: The proposed railroad alignment just crosses the extreme northwest corner of this section, taking only 0.8 acres out of grazing production. Potential impacts to the use of this tract from rail traffic activity would be increased incidence of wildfires, introduction of noxious weeds, increased livestock mortality, and impairment of livestock movement.

Site No. 5: The proposed railroad alignment crosses the northern portion of this section removing 13.23 acres of grazing land. Potential impacts to the use of this tract from rail traffic activity would be increased incidence of wildfires, introduction of noxious weeds, increased livestock mortality, impairment of livestock movement, and disruption of existing fences.

Site No. 6: The proposed railroad alignment crosses the entire length of this section removing 32.74 acres of grazing land. Potential impacts to the use of this tract from railroad traffic activity would be increased incidence of wildfires, introduction of noxious weeds, increased livestock mortality, impairment of livestock movement, and disruption of existing fences. In addition the close proximity of the rail line to the river and adjacent bottom land may hinder or preclude any future dry land or irrigated agricultural development.

Site No. 7: The proposed railroad alignment crosses the Tongue River with the right-of-way encompassing 2.59 acres. Potential impact to the use of this tract from railroad activity would be disruption or impairment of water related travel or recreational activity.

Site No. 8: The proposed railroad alignment crosses diagonally through the northwest quarter of the section removing 26.96 acres of grazing land. Potential impacts to the use of this tract from railroad traffic activity would be increased incidence of wildfires, introduction of noxious weeds, increased livestock mortality, impairment of livestock movement, and disruption of existing fences.

The remainder of these sites, as existing transportation corridors, would essentially be unchanged in character.

Other concerns regarding the impacts of the rail line include the potential for an increase in the number of man-caused wildfires directly attributable to railroads. The incidence of such fires in Rosebud county is currently significant. By far the greatest number of fires in this area are started by trains (DSL Eastern Land Office, EA Checklist, Dec. 22, 1986). Generally speaking this is a result of poor preventative measures along the railroad rights-of-way and problems with spark arrestor maintenance on the engines. Therefore an appreciable burden may be placed upon county volunteer

firefighters and equipment in Powder River, Rosebud, and Custer counties if the proposed railroad is approved.

Noise impacts on the state tracts should not pose significant impacts on the rural areas and would not affect land use. These tracts are isolated, with no residences on or near the tracts.

Noise impacts in the Miles City area near the fish hatchery are addressed in the Draft Environmental Impact Statement and the supplement to the Draft Environmental Impact Statement (Finance Docket No. 30186).

B. Cultural Resources

Although no cultural resources have been identified in the tracts under state jurisdiction, the potential for such resources exists in some tracts based on historic patterns of land use. The following is a site by site summary of this potential.

Site No. 1: The railroad could impact significant archaeological and/or historical sites which may be significant enough for listing on the National Register of Historic Places.

Site No. 2 and 3: It is unlikely that the railroad will impact significant cultural sites.

Sites No. 4, 5, 6, 8, 9, 10, 11, A, B, C, and D: The railroad could impact significant cultural sites.

Site No. 7: It is very unlikely that the railroad will impact cultural sites in the riverbed.

A Memorandum of Agreement (MOA) has been signed by the Montana State Historic Preservation Office, the Interstate Commerce Commission, the Advisory Council on Historic Preservation, and the Tongue River Railroad Company. This MOA (Appendix C) clearly outlines the course of action to be taken in considering cultural resources. In particular, if a site is significant, as determined by the SHPO and the Advisory Council on Historic preservation, specific mitigation and/or avoidance measures would be required of TRRC. Appendix C addresses these requirements in detail. Thus, the Tongue River Railroad Company would be in compliance with State and Federal Antiquities Laws by carrying out the MOA.

The MOA applies to all sites identified in this document as well as to cultural resources addressed in the ICC's environmental analysis.

A stipulation will be added to State leases requiring that the DSL receive copies of any site forms for any sites found on state-owned lands. The site forms will be accompanied by a copy of the inventory report.

C. Socioeconomics

Few socioeconomic impacts would result from the specific proposed state actions being analyzed in this EA. However a summary of overall socioeconomic impacts is provided for the reader. These impacts are a summary of those present in the federal final EIS (ICC, 1985).

1. Fiscal Implications

The sections of state land that are traversed by the railroad will likely suffer a decrease in agricultural value, depending on the amount of restriction of cattle movement. However, this potential decrease in the value of land for grazing purposes (and potential decrease in grazing fees) will be at least partially offset by the rental rates charged for right-of-way land. If an easement is issued the proposed railroad would be returning a revenue of between $35.00 and $45.00 per acre plus damages as per conversations with Reed Lommen, State Lands Department Appraiser. This rate of return is based on fair market value for grazing lands. At the time an easement is executed, this rate may be slightly higher, based on land values at the time of issuance.

If a lease were to be issued instead, the annual rental rate would be 3 to 5 percent of projected income, or a fixed percent of fair market value, whichever is more realistic a number at the time the lease is negotiated.

Construction of the TRRC and the related mines would have varying impacts on county revenues. During the construction period, some jurisdictions would experience revenue deficits. The revenue deficits would occur when a jurisdiction incurs the costs associated with an increased population but does not receive TRRC or mine tax payments. On a county level basis, only Powder River County would experience a net fiscal deficit for the entire construction period. The residents of Custer County, particularly Miles City, and Rosebud County have the most to gain in terms of tax decreases. and residents of Powder River County, particularly Broadus, will experience the largest per capita tax increase (to finance city government and school district services). However, it is estimated that Powder River County residents would experience a long-term fiscal surplus. A revenue-sharing program could be implemented within a county to lessen the tax burden of the adversely affected jurisdictions. It is estimated that once the railroad and mines are fully operational, the tax revenues from the TRRC and the five surface mines would more than offset the government expenditures (local and state), associated with these projects (ICC, 1985; pp64-73)

The FWP decision to lease or grant an easement could result in the relocation of the hatchery to some other area of the state, because of incompatibility with the railroad in close proximity to the hatchery. In excess of $5 million dollars would be required to relocate and redevelop the hatchery from scratch. In addition, if BLM determines that a lease or easement could result in a "diversion of use" all FWP federal aid funding statewide could be placed in jeopardy. FWP receives about $5 million in funding annually from the U.S. Fish and Wildlife Service. FWP is still waiting for a determination from the federal agencies involved.

The lands that are being crossed that are state lands would not return any additional revenue as far as tax base to the counties since state lands are nontaxable. However, there would be additional revenues generated to the counties from the personal property taxes and other taxes on the rolling stock that would be traversing the property. The revenue DSL would receive would go to the school trust.

The major financial concern would be the effect the railroad traversing the hatchery would have on the fish population, federal fish and wildlife funding, and subsequent employment at the fish hatchery. A potential decline in employment at the fish hatchery would be offset by increases in employment by the railroad company. Therefore, the net effect would be increased employment.

In the ICC document, the hatchery was considered only to the extent that it was noted that the railroad would go through the hatchery property. Construction of TRRC line will require the diversion of property presently in use by FWP. Direct hatchery concerns are addressed below to the extent they can be predicted from the general alignment submitted by the TRRC. A detailed survey and alignment have not yet been completed for the hatchery site. TRRC must provide a detailed survey identifying acreage, location and appraised value of all diverted parcels which would be unusable to the state due to railroad construction and operation. This information would then be used to finalize easement or lease conditions.

Most potential impacts to the hatchery would fall into two categories: facilities relocation or damage and production damage. Under the proposed approximate alignment, the sewage lagoon at the hatchery would have to be relocated or other disposal facilities provided. Facilities damage would most likely occur in the event of derailment or fire, although structural damage is feasible due to harmonic vibrations. Damage to the productivity of the hatchery could result from harmonic vibrations, chemical spills or excessive erosion during construction activities or accidental severing of water or power lines. If all of these things were to happen, which is not likely, the major economic loss would be the $5 million of improvements put in over the past five years. This includes new ponds, raceways, buildings, and other improvements. Secondarily, FWS has stated that if FWP's ability to raise fish is adversely affected by the railroad, this would constitute a "loss of control" and therefore a diversion of funds. If such a determination were made, the potential exists for placing <u>all</u> of federal FWP funding in jeopardy (FWS, Feb. 1989). FWP is now discussing the situation with the USFWS and the BLM to determine what responsibility and flexibility they have in dealing with the TRRC proposal. No response was available as of September 20, 1989.

Prior to issuance of a lease or easement, FWP could require a baseline seismic survey to be conducted on the hatchery property and a comparative survey of BN trackage where train speeds, loading, and soils are similar to anticipated conditions at the hatchery properties. This information could then be used to estimate seismic impact to the hatchery to validate or refute previous TRRC studies.

TRRC construction will sever access from the hatchery facilities to critical water delivery pipelines and a pump station that require unrestricted access for operation and maintenance. The proposed operation of TRRC would block access to these properties a significant amount of time. To compensate or this loss of access TRRC must commit to acquiring and maintaining crossings to provide unrestricted access to severed facilities on the north side of the interstate, in the event of track blockage. This would involve a ground level crossing on the existing access road and either building an overpass at the hatchery or acquiring access for FWP through the LARSS underpass just to the south of the hatchery.

Hatchery repair and maintenance, unrelated to the railroad, will be an ongoing activity. Such activities, which include pipeline repair and maintenance, dike repair, and drainage ditches, may at times interfere with railroad operations. Therefore, as a lease condition, FWP proposes to require that hatchery repair, maintenance, and fish production activities have priority when such conflicts occur and that TRRC develop a traffic control procedure for such conflicts. In addition, proposed lease conditions include the requirement for TRRC to bear the cost of restoring railroad features when repair or maintenance work is required which encroaches on TRRC facilities, regardless of who performs the actual work.

Prior to granting an easement, TRRC must agree to upgrade the secondary water supply in order to provide an adequate water supply to the hatchery should either source be disrupted. Any damage to the water delivery system by TRRC must be repaired in a timely manner by TRRC and FWP must be compensated for any secondary damages which may occur as a result.

Other concerns that need to be resolved and agreed to by FWP in the easement area are train speed, siding or waiting time, debris disposal and use of the easement as a storage area. Train speed affects the probability of derailment, and severity of vibration and elevated noise levels as a result of train speed can affect production. TRRC must assure that the proposed train speed through the hatchery does not create any negative impacts to the hatchery.

Due to the close proximity of the hatchery site to the rail yards and the topography, there is potential for hatchery lands, under lease or easement, to be temporarily used for storage of ties or other unknown items that could have the potential to place the hatchery at risk from fire, chemical seeps, and airborne contaminants from the area. These events would interfere with production and/or result in elevated maintenance costs due to clean up requirements. TRRC would have to submit a management plan to address these concerns, with their application for lease or easement. FWP would then place appropriate restrictions on the lease or easement agreement with regard to activities or acreage.

Many of the concerns listed above are beyond the ability of the current staffing and expertise of FWP to resolve. Therefore, TRRC must provide adequate funding so FWP can retain consultants of appropriate expertise to advise the Department during development, design and construction of the railroad.

2. Employment

Based on the increase in demand for local labor during construction and operation of the railroad, employment in the Agricultural sector may be impacted. Approximately 50 percent of the ranchers in the area hire full-or part-time workers (ICC, 1983). Since periods of high demand for construction labor and farm labor will coincide, farm wages may be driven up. During the railroad construction period, the tricounty population is expected to increase by approximately 22 percent and employment is expected to increase approximately 20 percent. However, long-term changes in population and employment are expected to be much smaller, with population increasing approximately 2 percent and employment increasing by less than 1 percent.

Another issue regarding employment involves the fish hatchery, If the railroad adversely affects fish production, the hatchery may be forced to close, possibly increasing overall unemployment in the area.

3. Services

Along with the increased labor force will come an increase in the demand for services, particularly housing and public facilities. Colstrip, Forsyth, and Miles City may experience short-run housing problems that could be alleviated by building construction camps. Ashland, Birney and Broadus may experience more severe housing shortages because these communities will experience the greatest percent increase in population; additionally, Ashland may be required to expand its elementary school and water treatment facilities to meet the increased demand.

D. Vegetation

During construction of the Tongue River Railroad much of the vegetation within the right-of-way will be destroyed. There will be some undisturbed vegetation between the construction disturbance and the corridor boundaries. Portions of the disturbance will be reclaimed. The corridor will be fenced so that disturbed and undisturbed areas alike will be lost to other uses.

Some individual Astragalus barrii plants may be destroyed during construction of the railroad. To minimize the potential for impact the agencies would require TRRC to survey the alignment for Astragalus barrii and provide a technical report to the agencies. If the agencies concluded, based on their review and verification of the report, that the population were not in danger from construction, or if the status of the species were to change, mitigation measures would be modified accordingly. If the impact were determined to be significant the agencies would require TRRC to develop a mitigation plan consistent with the Endangered Species Act.

Site No. 1: Although it is not known how many acres would be replaced by rail corridor, most of this vegetation is not currently being used for any particular economic, scientific, or other significant use.

Railroad rights-of-way provide conditions that promote the accumulation of noxious weeds and fuel loads that create elevated fire hazards. Due to toxicity of weed killer and fire suppressant chemicals TRRC must establish and adhere to a management plan which is acceptable to FWP for the control of weeds and fire in the easement area.

Site No. 2, 9, 10, 11, A, B, C, and D: Introduced vegetation in the roadside borrow areas will be disturbed temporarily. On MDOH permits a stipulation will be added requiring the TRRC to revegetate all disturbed areas within the MDOH right-of-way. Counties will be encouraged to include this stipulation on secondary road crossings.

Site No. 3: Introduced vegetation in the roadside borrow areas and median will be disturbed temporarily. Stipulations will be added to encroachment permits requiring that all disturbed portions of MDOH right-of-way be revegetated.

Site No. 4: About 0.3 acre will be disturbed by construction and 0.2 acre of undisturbed vegetation will become isolated with the fencing of the corridor.

A total of about 0.2 AUM of livestock grazing capacity will be lost.

Site No. 5: About 5.7 acres will be disturbed by construction and 1.7 acres of undisturbed vegetation will become isolated with the fencing of the corridor.

A total of 1.9 - 2.5 AUM of livestock grazing capacity will be lost.

Site No. 6: About 14.6 acres will be disturbed by construction and 6.5 acres of undisturbed vegetation will become isolated with the fencing of the corridor.

A total of 6.2 - 8.3 AUM of livestock grazing capacity will be lost.

Site No. 7: Little or no vegetation will be disturbed between low water marks.

Site No. 8: About 11.4 acres will be disturbed by construction and 4.1 acres of undisturbed vegetation will become isolated with the fencing of the corridor.

A total of 4.2 - 5.5 AUM of livestock grazing capacity will be lost.

In summary, about 32 acres of big sagebrush/grassland and silver sagebrush/ grassland will be disturbed by construction and 12.5 acres of undisturbed vegetation will become isolated with the fencing of the corridor. Part of the disturbance will be revegetated but all 44.5 acres will be lost to other uses.

A total of 12.5 to 16.5 AUM livestock grazing capacity, from all state lands in the TRRC corridor, would be lost. Therefore, the loss would be insignificant.

E. Air Quality

The air quality impacts described in the FEIS are applicable to all fifteen sites under consideration. Railroad construction activities would generate particulate emissions and exhaust emissions from heavy equipment operation. The localized impact of these particulate emissions could be significant; however, with proper mitigative measures it would be greatly reduced. These measures include watering of the work areas, minimizing the area of disturbance, prompt revegetation of disturbed areas, and strict adherence to open burning regulations for slash disposal. Impacts to air quality during operation of the railroad would result primarily from locomotive diesel exhaust emissions, but no exceedances of state and federal air quality standards would be expected.

In summary, no impacts are expected to the Class I airshed on the Northern Cheyenne Indian reservation, which varies from 1 to 2.5 miles south of state tracts in the proposed rail corridor site (T1S, R44E, sec. 27 and 34) because of the low level of total emissions.

An air quality permit would not be required for the railroad itself although contractors may be required to have permits for some construction activities.

F. Wildlife

No wildlife concerns have been identified on any tracts of state lands to be affected by the railroad, except for the hatchery. In addition, there are fishery concerns regarding the Tongue River Crossing which have been forwarded to the Army Corps of Engineers, the agency responsible for issuing the 404 permits. The 404 permit allows the TRRC to place fill material in waters of the United States pursuant to Section 404 of the Clean Water Act (33 USC 1344), for the purpose of constructing a bridge over the Tongue River (site no. 7, Sec. 27, T1S, R44E). This permit was issued September 30, 1986, and must be specifically extended if the work isn't completed prior to Sept 10, 1989, or it shall be revoked. Thirteen special conditions have been attached to the permit (Appendix B) for the purpose of protecting fisheries and water quality.

Due to a lack of known threatened and endangered species, no impacts to threatened and endangered species are anticipated. However, TRRC proposes to conduct one last ferret survey prior to construction, in accordance with Appendix B mitigations required by the ICC. The DSL and FWP would request copies of those surveys to facilitate agency decision making.

Site No. 1 - In the ICC document, the hatchery was considered only to the extent that it was noted that the railroad would go through the hatchery property. Construction of TRRC line will require the diversion of property presently in use by FWP. Direct hatchery concerns are addressed below to the extent they can be predicted from the general alignment submitted by the TRRC. A detailed survey and alignment have not yet been completed for the hatchery site. TRRC must provide a detailed survey identifying acreage, location and

appraised value of all diverted parcels which would be unusable to the state due to railroad construction and operation. This information would then be used to finalize easement or lease conditions.

a. Vibration

Vibration and its effects on fish production due to train traffic is an area that is little understood. However, evidence is available that shows vibrations alter the behavior, growth and development of fish. Also, effects of such vibrations on physical plant and geological features are of great concern to FWP. In one case history, coal train traffic similar to the operation proposed by TRRC may have resulted in the complete destruction of a USFWS hatchery in Colorado due to the triggering of a landslide on an adjacent slope. Some controversy exists over the exact cause of the landslide. The Camelsback is adjacent to the ponds and concern about potential slope failure exist. The Camelsback is composed primarily of shales and clays. Additional concern focuses on whether or not harmonic vibrations could potentially damage the hatchery's primary water line, which parallels the track for some distance. Additional information is included under Engineering, below. To assure similar problems do not develop at the Miles City Fish Hatchery, the FWP has proposed to require an independent third-party analysis of TRRC's conclusions that no damage would occur (Appendix D).

Due to FWP's uncertainty regarding the success of this plan, the FWP also proposes to place both productivity and physical plant conditions on the easement. To assure FWP's ability to provide fish at the design capacity of the hatchery, the proposed easement condition would state that failure to achieve design capacity in the absence of other natural causes, will be compensated for by the TRRC to the extent that TRRC provide construction and operating funds for a replacement facility to produce the projected number of fish. The hatchery is expected to reach full production by 1990. Depending on the time to construction and operation FWP may have up to 5 years of production history which will serve as a baseline for evaluating railroad impacts. This assumes that the FWP segment of tract would be constructed last.

For many physical plant repairs a direct cause and effect relationship may not be established. Repair and maintenance activities would include, but are not limited to, pipe breaks, dike degradation and disruption of physical and geological features. To assure the integrity of the physical plant, the FWP proposes to stipulate on the easement that TRRC must accept responsibility for repair and maintenance needs that exceed historical repair frequency for the hatchery facilities. In the event no historical data are available, repair frequency for other warm water hatcheries of similar age operating in these latitudes across the United States would be used as a baseline. As an alternative, TRRC could provide funding for FWP to acquire an independent evaluation of the TRRC plan, and TRRC would commit to any additional reasonable mitigation identified by the independent consultant.

b. Chemical Containment

After the railroad is constructed, its proximity to hatchery rearing units places the fish at a high risk due to chemicals originating from leaks, spills

or derailments. TRRC has proposed to construct a berm between the railroad and the hatchery that should preclude any such impacts. However, a similar berm is not provided for between the pump station and the rail line. Such a berm could be required in the lease or easement. The placement of a hypolon liner in the borrow area between the rail bed and the berms would also serve to catch any toxic chemicals and minimize the potential for surface or groundwater contamination. In order to assure FWP is protected against a catastrophic event, TRRC could also be required to provide a bond or insurance as a part of any lease or easement agreement. In addition, FWP would require a bond up front which FWP could use at any time to deal with emergencies resulting from railroad activities. If such a bond were not provided, monies for mitigation and or repair would not be available in a timely fashion. FWP would have to rely on the 2-year legislative budgeting process and/or go through a lengthy bond-forfeiture process.

Fish are extremely susceptible to herbicides. FWP uses nonchemical means for weed control on the hatchery. TRRC would be required to use nonchemical weed controls as a lease or easement condition in order to assure no damage to fish production occurs.

Therefore FWP proposes to add an easement restriction. Prior to approving an easement, the TRRC must agree to include containment barriers in their designs to prevent such contaminants from reaching the hatchery facilities. In addition, TRRC must develop a management plan whereby they will contain, clean up and compensate the state for any loss in production and immediate restoration of facilities should the hatchery become contaminated.

Sites No. 2, 3, 9, 10, 11, A, B, C, and D: No additional impacts to wildlife would be expected at road crossings, particularly where there are grade separations. A slight increase in road kills might result at secondary crossings without grade separations; however, no significant impact to wildlife populations would be expected. Other impacts to wildlife from the proposed railroad are discussed in the ICC document.

Site No. 4 - Specific impacts to the wildlife within the planned right-of-way corridor, would be quite negligible. Potential exists for the train to disrupt the migratory patterns of antelope, mule deer, and whitetail deer. When travelling to winter range animals will no doubt be hit by moving trains from time to time. The grouse species will potentially have nest sites removed by the planned corridor. No lekking sites are known to exist within the right of way corridor. The prairie dog colony within the right of way would very likely be removed, due to land taken and noise/vibrations. Raptors would not be affected.

Site No. 5 - Specific impacts to the resident wildlife populations within the right-of-way corridor would be limited to disruption of grouse nesting. No known lek sites are known to exist in the corridor, disruption could occur within one mile however. There would be a disruption of the migration of the big game species, antelope, mule deer and whitetail deer, in their efforts to migrate from spring range to winter range. Deer and antelope would no doubt be hit by moving trains from time to time. No impacts are anticipated with raptors or turkeys.

Site No. 6 - Impacts in this parcel would occur mainly to migratory species as they ingress and egress the river nearby. Deer, antelope, turkeys, badger, and weasels would be hit by moving trains from time to time. Disruption of fish feeding species would occur by noise and vibrations, eagles, raccoons, and other migratory birds. Nesting of raptors along the river might be displaced by noise and vibrations. Fawning sites might also be lost due to noise and vibrations.

Site No. 7 - Impacts during construction would be the primary concerns near and in the riverbed. The bridge would remove whitetail fawning sites, mink, beaver, muskrat, and weasel habitat, and crucial riparian zones which serve as security for songbirds and varmints. Turkeys would also lose some important nesting/feeding habitat during and after construction. Loss of fish species during construction due to sedimentation would be negligible. Riparian habitat lost in the riverbed in Sec. 27, T1S, R44E, Rosebud County, should be replaced with plantings of willows and like riparian species in several small areas upstream.

Site No. 8 - Specific impacts to the wildlife species on this tract consist mainly of disrupted migration routes. Deer and antelope could be hit from moving trains from time to time. Grouse would lose nesting sites and potential lekking sites within the perimeter. These leks would be lost mainly from noise and vibrations rather than the loss of land. Raptor nesting sites may be lost due to the noise and vibrations also. Several important deciduous trees would be lost in the right of way taking which serve as important security cover for birds and big game. Therefore TRRC would be required to plant deciduous trees within the tributary of the Tongue River in scattered locations to replace those lost in the right of way taking in Sec. 36, T2N, R44E, Rosebud County. These trees shall consist of tree species already present.

G. Transportation

An agreement has been signed by the Montana Department of Highways and the Tongue River Railroad Company. This agreement (Appendix D) clearly outlines the course of action to be taken in the construction of roadway crossings and the design standards that are to be followed. The agreement applies to all roadway crossing sites identified in this document, which summarizes all the preliminary encroachment applications submitted to date by the applicant. The agreement will be null and void if the TRRC has not initiated construction on any of the crossings by December 23, 1993. Road crossing sites are graphically shown on map A (site 2 is omitted on this map as no information has been received from the applicant for this site).

Sites: 2, 3, 9, 10, 11, A, B, C, and D: The major impact to local traffic patterns at each site will occur during the construction phase of each crossing. In order to mitigate this impact, the TRRC must submit to the Montana Department of Highways for approval, a traffic detour and signing plan that is sufficient to protect the traveling public and maintain traffic flow through the proposed construction sites before any encroachment application will be approved. The carrying capacity of the roadways will not be impacted

by the construction of the crossings. Any increase in accident rates associated with the structures will be mitigated to the lowest possible levels by the TRRC adhering to the design standards specified in the signed agreement.

In addition to the above comments, the MDOH offers the following relevant to down-line transportation impacts in Miles City. Under the high-production scenario, 25 trains a day will move on the TRRC line. This number of trains, when combined with the other trains on the BN line (currently approximately 18-20 trains per day) could cause severe traffic delays in the Miles City central business district. Though this impact will not occur on the TRRC line proper, it will be exacerbated by haulage on the TRRC line. This impact will be mitigated if the applicant adopts the Milwaukee Road alternative through Miles City which does not impact the central business district. Site #2 is an integral part of this alternative. The "Master Mitigation Policy and Plan" (Final Environmental Impact Statement for the Tongue River Railroad Company, Interstate Commerce Commission; 1985) for this action states that the applicant "should commit to working with the BN, the Montana Department of Highways, and the town of Miles City to alleviate any traffic problems in the future" (ibid, appendix B, pg. 14). If the Milwaukee Road alternative through Miles City is not adopted, the MDOH encourages the applicant to pursue the mitigation measures that have been identified in the Project's final EIS and to which they have agreed.

H. Engineering/Topography

At the Tongue River Crossing, the construction of the proposed rail line would encroach on a flood prone area. The proper design of the river crossing would prevent any significant alteration of the flood plain during a 100-year flood event. The provision of a proper flow capacity would ensure that the bridge would not affect the natural moderation of a flood flow. The encroachment on the flood plain would not cause additional threat to human life from flood waters, nor should it threaten existing transportation systems. See Figure 11 for additional detail. Also, the ICC FEIS includes a Master Mitigation Policy and Plan (Appendix B) addressing the permits needed for this feature.

Grading of the trackbed would commence with the removal and storage of topsoil. Excavation from cut areas would be accomplished by using either scrapers, front-end loaders, power shovels, or draglines. Blasting in the right-of-way is not anticipated. Material from cut areas would be transported by scrapers to fill areas for placement. The Tongue River Railroad Company anticipates using much of the cut material for fill. However, some additional sub-ballast may be necessary. This material would be secured either from established borrow pits in the Yellowstone Valley or from one of four new, local, five-acre borrow areas. See Figure 12 for detailed cut/fill section. Specific calculations are presented in an engineering report prepared by Intra Search of Billings.

A description of all sites follows:

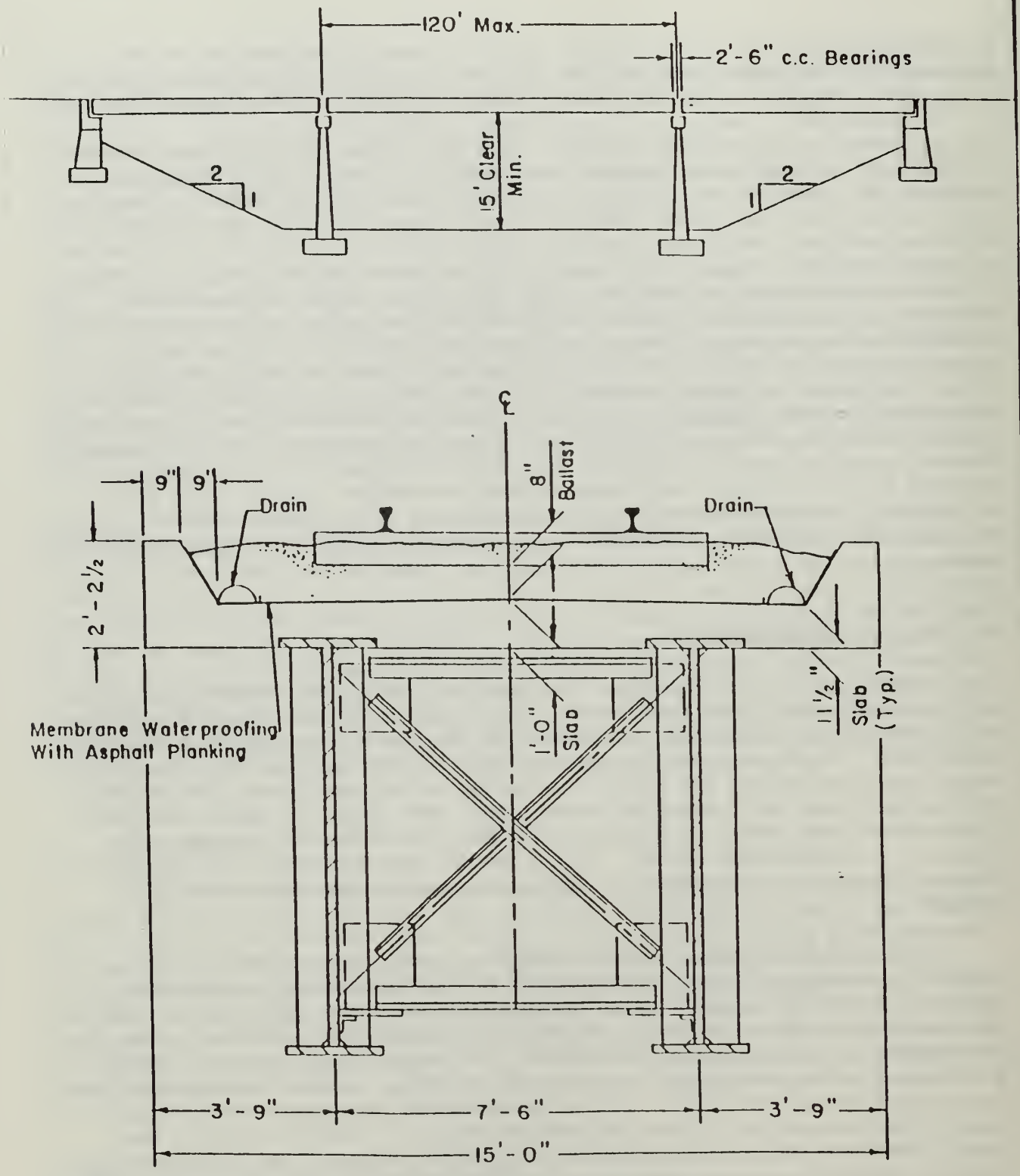
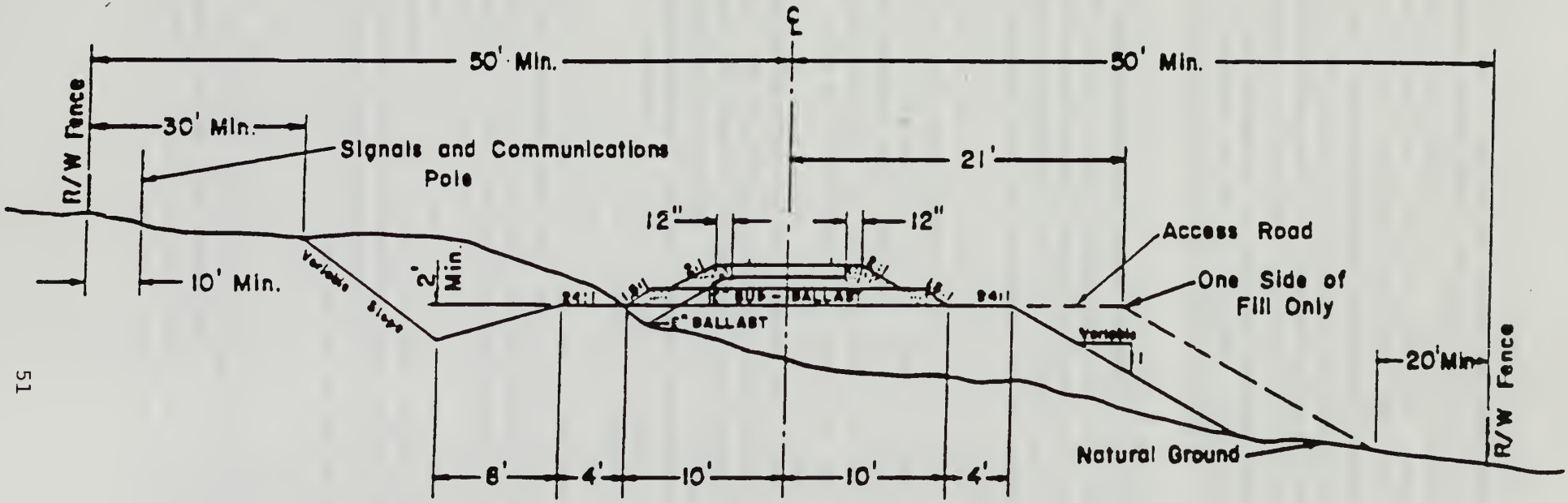


Figure 10

TYPICAL LONG SPAN BRIDGE

T R Railroad Co.
2-17-81

Figure 11 - Typical Long Span Bridge



TYPICAL CUT / FILL SECTION

T R Railroad Co.
9-20-82

SCALE: NONE

Figure 12 - Typical Cut and Fill Section

Site No. 1: The hatchery includes the Camelsback which is approximately 100 feet high and has side slopes which vary from 15 to 50 percent. These slopes, composed of Cabbart-rock outcrop-Delpoint complex (386F) drain directly into the fish ponds. This soil complex is a thin, well-drained soil complex having a water capacity of 0 to 5 inches. Much of the parent material is weakly consolidated loamy sediment beds. FWP engineers indicate a stability analysis of the average slopes would probably not show a problem based on soils types. However a detailed site-specific analysis should be done for the steeper slopes. Of greater concern would be the integrity of the ponds themselves when the subsoils and pond construction materials are subjected to harmonic vibrations. Therefore, detailed engineering, soils, topographic and seismic analysis must be conducted to determine whether or not the hatchery site and activities are compatible with railroad construction and operation activities.

Site No. 2, 3, 9, 10 ,11, A, B ,C, and D: Grade separations are proposed for each of these sites. The agreement (Appendix E) signed by the MDOH and the TRRC specifies design standards that will be adhered to in designs submitted for the separation structures and associated highway approaches where the rail line crosses all Federal Aid System roadways. Final topography of these sites will conform to cut and fill slope ratios specified in the "Montana Department of Highways Road Design Manual."

Site No. 4: Total length of centerline across school trust land is 160 feet. Although this area is gentle sloping, there will be a maximum cut of seven feet necessary to achieve a track grade of 0.130 percent. The average width of disturbance is 90 feet. One private grade crossing is proposed to connect the severed private road. There are no culverts planned for this area.

Site No. 5: Total length of centerline across the two sites of school trust land is 1,490 feet. The maximum cut and fill slopes are 3:1 and 2:1 respectively. The maximum width of disturbance for either cut or fill slope is 150 feet. The track grade will maintain a constant 0.086 percent through the two sites. There are two culverts proposed in the $NW\frac{1}{4}NW\frac{1}{4}$ to ensure proper drainage. These culverts are 24 inches and 48 inches in diameter. There are no private grade crossings proposed for either site.

Site No. 6: Total length of centerline across school trust land is 5,660 feet. Both cut and fill slopes will be constructed at a maximum of 2:1. The maximum width of disturbance for either cut or fill slope is 160 feet. This occurs where a fill embankment crosses Roe and Cooper Creek. The track grade changes approximately midway from 0.003 percent in the south to 0.038 percent in the north. One private grade crossing is proposed to connect the severed private road by Roe and Cooper Creek. There is also a cattle underpass proposed in the same area. Eight locations are proposed to have culverts to ensure proper drainage. The size of the culverts range from a single 24 inch diameter culvert to using two culverts for Roe and Cooper Creek, both 96 inches in diameter.

Site No. 7: Site No. 7 is a river crossing for the Tongue River. The crossing is a typical long span bridge having a span of 300 feet between two fill embankments. Due to the length of the span, there will be two piers supporting the crossing. The piers will be constructed within the river channel at ap-

proximate dimensions shown in Figure 11. The proposed track grade is 0.000 percent. Minimum clearance is approximately 27 feet between the bottom of the span and the water level.

Site No. 8: Total length of centerline across school trust land is 3,610 feet. Both cut and fill slopes will be constructed at a minimum of 2:1. The maximum width of disturbance for either cut or fill slope is 240 feet. The track grade will maintain a constant 0.129 percent throughout its length across the site. There are four culvert locations proposed to ensure proper drainage. The size of the culverts range from a single 24-inch diameter culvert to using two culverts both 54 inches in diameter. There are no private grade crossings or cattle underpasses proposed for this area.

The proposed grade crossings, culverts and cattle crossings are adequately designed. Most impacts will be a result of the cut-and-fill slopes. Erosion would be accelerated and revegetation more difficult, as a result of the slopes. In order to minimize erosion and maximize revegetation success on cut and fill slopes steeper than 3:1 but less than 2:1, serrations should be made parallel to the slope to act as stable seed beds and sediment traps. Mulching and seeding should be conducted using hydroseeding/mulching equipment. Every attempt should be made to minimize foot traffic on the reclaimed slopes until vegetation is well established.

I. Hydrology

Four categories of water quality impacts may be anticipated from the construction of the Tongue River Railroad Company's proposed railroad or its alternatives: (1) Newly worked soil surfaces are more susceptible to erosion and resultant increases in stream sediment loads; (2) changes in surface drainage patterns may create new areas of increased erosion and sediment loads; (3) bridge construction and/or placement of culverts may create new sediment sources; (4) accidental spills of fuel or other chemicals could impact aquatic resources. Most anticipated construction impacts on the quality of the Tongue River and its tributaries would be short-term and would have minimal water-quality impacts. Culverts would be sized to handle 100-year flood events and all drainage crossings would be designed to prevent any significant alteration in the floodplain during a 100-year flood event. Site-specific impacts expected are as follows and additional detail for the entire line is presented in the ICC FEIS (1985).

Site No. 1: Erosion during construction may also impact the hatchery by increasing the sediment in surface water runoff that enters the fish ponds. TRRC proposes to control surface erosion during construction by rapid revegetation. This plan must be adhered to in the easement and must provide procedures which assure both protection and rapid stabilization of disturbed areas so that they can be immediately returned to service. Additional measures which could be required include the immediate mulching of exposed surfaces independent of plantings, and, in site-specific circumstances, the construction of a perimeter berm to control surface erosion flows.

In addition to construction runoff, the potential for water quality problems exists from two sources: breakage of water lines or contamination of

Spotted Eagle Lake from runoff or material spills associated with the railroad. Breakage of transmission lines would interrupt both the flow and quality of water for the hatchery. Contamination of Spotted Eagle Lake could render the lake unusable as a recreational site. Impacts from line breakage could be mitigated through appropriate construction and operation techniques or development of additional water supplies. The potential for contamination of Spotted Eagle lake could be minimized though construction of a berm to contain any materials which would otherwise drain towards the lake. Chemical hazards to the hatchery are discussed under wildlife.

As a result of these potential impacts, FWP proposes to add an easement restriction. Prior to approving an easement, the TRRC must agree to include containment barriers in their designs to prevent such contaminants from reaching the hatchery facilities and Spotted Eagle Lake. In addition, TRRC must develop a management plan whereby they will assure that the potential for disruption of the hatchery watery supply, due to line breakage, is minimized and repairs in the event of such damage are promptly initiated.

Site No. 2, 3, 4, 11, A, B, and C: Minor water quality impacts are anticipated because there are not any known ground or surface waters in near proximity to the site. During construction short-term sediment transport may occur.

A stipulation will be added to the encroachment permits for MDOH rights-of-way requiring the TRRC to perform a flood hazard assessment if a floodplain is crossed or encroached upon and to mitigate any impacts to the Federal Aid System caused by this action. Counties will be encouraged to include this stipulation on permits for secondary road crossings.

Site No. 5, 6, 8: This site crosses several intermittent drainages and traverses some steeper terrain. Depending on the design and installation there may be minor to moderate impacts on water quality from erosion of cut and fill slopes, from placing culverts in drainage areas and from areas bared during construction.

Site No. 7: Crossing the Tongue River poses several potential threats to water quality. Short-term total suspended sediment loads may increase significantly during construction periods at the bridge site. Depending on bridge design, river flow dynamics may be impacted changing natural sediment deposition patterns and creating new areas of potential streambank erosion and having moderate impacts on water quality. There are major and immediate potential impacts on water quality from accidental chemical and fuel spills. Material used to treat structural members of the bridge may also cause minor to moderate impact of water quality.

Sites 9, 10, and D: During operation of the rail line, contamination from chemicals or other toxic materials could occur from an unmitigated derailment event, depending on the permeability of local soils and gravels. As construction of these crossings could impact existing Federal Aid System roadways in defined flood-prone areas, stipulations would be included on MDOH permits requiring the permittee to perform a flood hazard assessment when a floodplain is crossed or encroached upon in the vicinity of Federal Aid System roadways that are under MDOH jurisdiction.

CHAPTER IV - RECOMMENDATIONS AND CONCLUSIONS

Based on the above analysis, the agencies have determined that an EIS is not necessary to further evaluate the impacts of leasing or granting an easement for crossing DSL-administered lands or MDOH highway crossings. Impacts for the entire rail line were previously identified in the ICC document. Impacts identified as a result of the analysis in this document can be mitigated or minimized by the agencies' adoption of those mitigations proposed in Chapter 1. If TRRC were unable to commit to compliance with the identified mitigations, alternative routing would have to be identified and evaluated.

Based on the above analysis, the Department of Fish Wildlife and Parks has concluded that the potential exists for residual economic impacts to the Miles City Fish Hatchery. These impacts could include disruption of the hatchery and its primary water supply, loss of the hatchery and/or loss of all federal funding for fish and wildlife programs to the State of Montana. Therefore the FWP has concluded that an independent engineering review of the potential impacts of harmonic vibrations on the hatchery facility and the Camelsback must be undertaken before FWP can conclude that no significant economic impacts would occur from the proposed easement. The independent review would focus on whether the mitigation measures proposed by the TRRC would be adequate to prevent damage, and if not, what additional measures would be necessary.

Potential financial impacts to the hatchery, although of great concern, do not in and of themselves trigger an EIS. If FWP's financial concerns can not be resolved with the TRRC, FWP would deny the TRRC's request for easement. TRRC would then identify an alternative route which would be evaluated by the responsible agency. The agencies, therefore, have concluded that an EIS is not necessary to evaluate the proposed actions, permitting and/or granting of easements or leases of state properties, because no significant residual impacts would occur which trigger an EIS.

CHAPTER VI - CONSULTATION AND COORDINATION

The following agencies have been contacted as a result of this review:

Custer County Conservation District
State Historical Preservation Office
Montana Department of Health and Environmental Sciences
Air Quality Bureau and Water Quality Bureau
Montana Department of Fish, Wildlife and Parks
Montana Department of Highways
Montana Department of Natural Resources and Conservation
Powder River County Conservation District
Rosebud County Conservation District

Personnel involved in the preparation of this document:

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Dori Passmann	Cultural Resources
Sandy Straehl	Transportation
Thurston Dotson	Wildlife
Claudia Furois	Word Processing
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	Gary Amestoy	John North
	Don Cromer	Eileen Shore

REFERENCES

Interstate Commence Commission. 1983. Draft Environmental Impact Statement, Finance Docket No. 30186, Tongue River Railroad - Construction and Operation - of a line of Railroad in Custer, Rosebud, and Powder River Counties, Montana

Interstate Commence Commission. 1985. Final Environmental Impact Statement, Finance Docket No. 30186, Tongue River Railroad - Construction and Operation - of a line of Railroad in Custer, Rosebud, and Powder River Counties, Montana

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Appendix A

SUMMARY/HISTORY

of the

Tongue River Railroad Company

PER Review for the State of Montana:

I. Description of the Railroad

The Tongue River Railroad Company (TRRC) was first organized in March 1980 as the TR Railroad. At that time it was a corporation composed of Diamond Shamrock, Washington Energy, and Wesco Resources. In June of 1981 the company was re-organized to include Consolidation Coal and was incorporated under the name of the Tongue River Railroad Company (TRRC). Today the TRRC is a limited partnership consisting of D.S. Cartage Corporation, Thermrail, Inc., Wesrail, Inc., and Otter Creek Transportation Company.

The TRRC filed an application in June 1983, pursuant to Section 10901 of the Interstate Commerce Act, requesting authorization from the Interstate Commerce Commission (ICC) to construct and operate a new 89-mile rail line. The Certificate of Public Convenience and Necessity was issued in May, 1986. The rail line would transport to market coal from the Ashland/Birney/Otter Creek areas of southeastern Montana. As a common carrier, the TRRC might haul commodities other than coal.

The Proposed Route

The new rail line would begin at Miles City, Montana, where it would tie in to the existing Burlington Northern mainline. It would bear south along the west side of the Tongue River to a point about 10 miles north of Ashland, Montana, where it would cross the Tongue River and continue south, along the east side of the valley. Near Ashland the rail line would divide into two branches, each with its own terminal point. One terminus is located 8.9 miles south of Ashland, Montana, at the proposed Montco Mine site along the Tongue River. The other terminus is located 7.7 miles southeast of Ashland in the Otter Creek drainage.

The bifurcation near Ashland would occur at one of two possible locations. A bifurcation east of Ashland would result in the Ashland SE Alignment, which would cut to the southwest across U.S. Highway 212 and Otter Creek, continuing for about three miles into the Tongue River valley. The Ashland SE Alignment would not enter the community of Ashland. The Ashland NW Alignment would result from a bifurcation north of Ashland. This alignment would continue south, close to the river, crossing Otter Creek near its mouth and passing through the community of Ashland before heading on to the south along the Tongue River. Neither of the alignments would affect the route to the terminus in the Otter Creek drainage.

The proposed TRRC plan requires the purchase or lease and the rehabilitation of certain facilities within Miles City. The

TRRC proposed an option to the rehabilitation of Milwaukee Road facilities in Miles City in 1894. The option proposed by TRRC would involve use of the Branum Lake facilities southwest of Miles City. This proposal was the subject of an addendum to the DEIS filed in January, 1984.[1]

Construction of the Rail Line

Many of the tasks involved in constructing the proposed railroad would be pursued concurrently. An estimated maximum of 570 persons would be involved in the construction project during times of greatest activity. Construction workers would live either in Miles City or in one of five construction camps of about 40 acres each, which would be located at points along the mainline. These areas would be situated outside of the right-of-way, and their specific locations would depend upon landowner negotiations.

The first task in constructing the TRRC railroad would be the acquisition of the right-of-way. This right-of-way would average about 200 feet, although the actual right-of-way width would vary, according to the size of cuts and fills. Once the right-of-way had been acquired, a contractor would begin construction of the mainline and sidings.[2] The contractor would first clear the right-of-way and then fence it.

Once the initial clearing is completed, bridges and culverts would be located. Culverts would be asbestos-bonded, bituminous-coated, corrugated metal pipe. Ranging in size from 24 inches to 204 inches in diameter, the pipe would be able to withstand a 100-year flood. The proposed rail line would require 12 bridges - to cross four county roads, U.S. 10 at Miles City, Interstate 94 at Miles City, U.S. 212 at two points near Ashland, the Tongue River, Paddy Fay Creek, and Otter Creek at two points. These

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[1]. See: U.S. Interstate Commerce Commission, "Addendum to Exhibit H, Burlington Northern Option, Draft Environmental Report, Finance Docket No. 30186; Tongue River Railroad Company - Construction and Operation", 1984.

[2]. Six sidings would be constructed for the proposed railroad: one at the the Miles City Interchange Yard (or the yard required for the BN Option); four at specific points along the rail line; one at the Montco Mine site. The four passing sidings would be 15,000 feet in length and would include shorter, "set-out" sidings constructed for the purpose of temporary railcar storage. The final location of the sidings would depend upon topographic characteristics and geometric parameters of the main track. See, U.S. Interstate Commerce Commission, "Draft Environmental Impact Statement, Finance Docket No. 30186; Tongue River Railroad Company - Construction and Operation", 1983.

bridges would be greater than 100 feet in length. All stream bridges would be designed to withstand a 100-year flood.

The track area then would be prepared for the placement of the rail. The bed would be graded in five or six-mile segments. The topsoil would be removed and stored until after grading, when it would be distributed along side slopes. Scrapers, front-end loaders, power shovels, or draglines would be used to excavate cut areas. Scrapers would transport material from cut areas to fill areas. If additional sub-ballast was required, it would be obtained either from established borrow pits in the Yellowstone valley or from one of four new, local, five-acre borrow areas.

When the grading was completed, the revegetation of side slopes, borrow areas, maintenance yards, and disturbed areas within the right-of-way would begin. The laying of the track would then ensue. The materials required for the track include 132-pound continuous-welded rail (cwr), treated ties, and crushed ballast. Pre-plated ties and other track material would be distributed along the road bed by truck. A work train would lay welded track along the roadbed, beginning in Miles City and moving south. The last construction activity would be the placement of ballast along the mainline, siding and passing tracks.

Microwave and power transmission facilities also would be constructed along the railroad right-of-way. The facilities would consist of four microwave towers, linked to a centralized traffic control board (CTC) in Miles City, and a 2,400-volt, single phase transmission line, which would supply power to the signaling and detection devices. The transmission line would consist of a "hot" top wire, a neutral middle wire, and a bottom wire for communications. The power poles would not require crossarms. These signal and communications facilities would be constructed after the completion of the track-laying work.

The right-of-way would also include an unimproved, single land dirt road located adjacent to one side of the track. Located within the sub-ballasted area, this road would provide access to the track for maintenance crews.

Operation of the Railroad

The predominant commodity to be transported by the TRRC would be coal. Each coal train operated by the TRRC would consist of two 3,000-horsepower diesel locomotives and 105 coal hopper cars. Each car would carry 96 tons of coal, resulting in each train carrying a 10,080-net-ton load. The trains would be operated 24 hours a day, 350 days a year. They would operate at the maximum allowable speed of 40 miles per hour. Train frequency would depend upon the amount of coal to be shipped. Under a medium coal production scenario one train would begin the

transportation of coal. In five years time five trains would be required. After ten years of operation eight trains would be transporting coal. The numbers of trains would continue to increase, peaking at 22 trains at the height of coal production.[3]

II. The Permitting Process

Following the formation of the Tongue River Railroad Company (TRRC) in March 1980, discussions were initiated with the Interstate Commerce Commission (ICC) regarding the requirements for a Certificate of Public Convenience and Necessity under Title 49 Part 1120 and the requirements for the preparation of an Environmental Impact Statement (EIS) under the guidelines of the Council for Environmental Quality (CEQ). After the end of the second meeting between ICC and TRRC officials, the ICC was identified as the lead agency for the preparation of the EIS.

With its designation as the lead agency, the ICC became the responsible party for initiating work on the Draft Environmental Impact Statement (DEIS). It sponsored "scoping" meetings and developed an outline for the DEIS. It oversaw the process of screening the alternative routes to be considered in Appendix B of the DEIS. It also designated cooperating agencies and approved the hiring of consultants to undertake the preparation of the DEIS.[4] Its role also included the review and release to the public of the DEIS and the review of TRRC's application for a Certificate of Public Convenience and Necessity. It conducted the hearings on the DEIS and TRRC's application. Its most recent involvement was the review, release to the public, and receipt of comments on the Proposed Master Mitigation Policy and Plan for the Tongue River Railroad Company.

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[3]. For the source of the above information on the proposed route, on the construction of the rail line, and on the operation of the railroad, see: U.S. Interstate Commerce Commission, "Draft Environmental Impact Statement, Finance Docket No. 30186; Tongue River Railroad Company - Construction and Operation", 1983, pp. 3-1 through 3-6.

[4]. For a brief discussion of the designation of lead v. cooperating agencies, see: U.S. Interstate Commerce Commission, "Draft Environmental Impact Statement, Finance Docket No. 30186; Tongue River Railroad Company - Construction and Operation", 1983, pp. 1-1 through 1-3. Among the cooperating agencies were Montana Department of State Lands, the City-County Planning Board, Miles City/Custer County, the Powder River County Board of Commissioners, the Northern Cheyenne Reservation, the U.S. Department of Agriculture's Science and Education Administration, the Federal Railroad Administration, and the U.S. Army Corps of Engineers, Omaha District.

The TRRC and its consultants took the following steps to fulfill its requirements of the permitting process:

- the conduct of feasibility studies - engineering and financial;

- the completion of Phase II Engineering;

- the agreement on tonnage levels and mines to be served by the railroad;

- participation in the process of screening alternative routes (Appendix B);

- presenting a list of consultants to work on the EIS;

- preliminary discussions with affected landowners;

- the submission of the Draft EIS to the ICC and later to the cooperating agencies, and the response to the comments of these agencies;

- the submission of the ICC application for Certificate of Public Convenience and Necessity, revised;

- the response to public comments following the release of the Draft EIS to the public by the ICC;

- the filing of a securities application with the ICC;

- the preparation of an addendum to the DEIS for a new connection into Miles City involving the Burlington Northern Railroad;

- the participation in the hearings held by the ICC on the TRRC Application and DEIS;

- the preparation of a mitigation plan;

- the preparation of right-of-way easement deeds across state and federal lands, U.S. Army 404 Permits (Dredge and Fill) and Montana Department of Highway's 310 permits.

The following paragraphs discuss the above steps in more detail.

Work Required Prior to DEIS Preparation

The CEQ guidelines suggest that agencies preparing EIS's involve the public. The ICC's Section of Energy and the Environment (SEE) invited participation by the public at four "scoping" meetings - two held at Miles City on August 7, 1980, one held at Broadus on June 23, 1981, and the remaining one held at Ashland also on June 23, 1981. The SEE considered the issues identified at the two 1980 meetings in developing its outline for the EIS. Also considered in the outline were those environmental issues related to the proposed rail line that were identified at a public workshop held by the Custer County Planning Board in Miles City on September 15, 1980.

In November 1980 the SEE published local notices asking for suggestions from the public as to alternative rail alignments to be considered in the EIS. These suggested alignments then were considered by the SEE in the "screening" process of the various alternatives to determine the alternative alignments that should receive detailed analysis in the EIS (see Appendix B).

When, in the spring of 1981, the TRRC modified its proposed alignment to construct a rail line into the Otter Creek drainage, the two "scoping" meetings were held in Ashland and Broadus. The issues raised in these meetings were incorporated into the EIS outline.

Various technical matters of the DEIS and application were addressed. In the fulfillment of its role, the ICC approved the hiring of HRA of Missoula to oversee completion of the DEIs. The ICC also approved the final outline for the DEIS, the format for the DEIS, and the review procedure for the DEIS. The TRRC itself was primarily concerned with the conduct of engineering and financial feasibility studies, which were undertaken to 1) assist the ICC in the identification of alternative routes for the railroad and 2) provide the consultants with specific information on the railroad project. The engineering firm employed by the TRRC completed Phase I engineering studies in August 1980. Examples of the engineering data prepared for the proposed railroad (and for the alternatives to the Proposed Action) included Plan and Profile sheets and illustrations of typical bridges, culverts, and cross-sections of the railroad.

At the request of the ICC, the TRRC also developed figures for coal production of the mines that could be served by the railroad. The question of alternatives to the proposed railroad was considered by the ICC The ICC not only considered alternative modes of transportation (i.e., coal slurry pipeline, truck and mine mouth generation), but it also considered alternative rail alignments. The ICC eliminated about five routes from consideration and identified three alternatives - the Tongue River Road Alternative, the Moon Creek Alternative, and

the Colstrip Alternative. The screening of alternatives is discussed in detail in Appendix B of the DEIS.[5]

The DEIS

The compilation of information for the DEIS began with the ICC's completion of an outline for the DEIS and their approval of the consultants selected to prepare the document. The consultants were given the responsibility of 1) undertaking a literature search for their respective disciplines, 2) conducting field work required to augment the findings of the literature survey, and 3) analyzing the impacts of the construction and operation of the proposed railroad and the three alternative alignments. Additionally, the consultants were to consider the impacts of the mines according to the three scenarios of coal development.

The consultants were required to prepare technical reports that contained at least eight parts, including the following: 1) a discussion of their methodology; 2) a description of the characteristics of their respective resource in the area of the proposed and alternative rail lines; 3) an analysis of the impacts to their resource of the construction of the rail line and operation of the railroad - for the Proposed Action and each of the three alternatives; 4) an analysis of the impacts of activities related to the railroad - i.e., the development of mines under projected low, medium, and high coal production scenarios; 5) a discussion of the unavoidable adverse environmental impacts of the Proposed Action; 6) a discussion of the short-term use of the environment vs. its long-term productivity; and 7) a discussion of the irreversible and irretrievable commitment of resources resulting from the Proposed Action. These technical reports provided the information for the text of the DEIS. In preparing the DEIS, HRA technical writers placed the information of the technical reports in the context of the ICC outline. The consultants then were given the opportunity to review the DEIS.

After HRA writers had completed the text of the DEIS and the consultants had reviewed their respective sections, the DEIS was submitted to the ICC for review. Originally HRA was scheduled to present the DEIS for review chapter by chapter. Chapters one through three and Appendix B were submitted in this manner. However, chapters four through seven and Appendix A were submitted to the ICC as a unit. Comments by the ICC were then incorporated into the text of the DEIS.

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[5]. U.S. Interstate Commerce Commission, "Draft Environmental Impact Statement, Finance Docket No. 30186; Tongue River Railroad Company - Construction and Operation", 1983, pp. B-1 through B-28.

Following the ICC's review of the chapters and Appendices of the DEIS, the DEIS was circulated among the cooperating agencies for their review and comments. After considering the evaluations of the cooperating agencies, the DEIS was submitted to the public for review and comment. It was again held up to public scrutiny during the six days of administrative hearings, held in January 1985.

In January 1984 the TRRC submitted an Addendum to the DEIS regarding the Burlington Northern Option, an alternative location for a northern terminus and yard facility. The BN Option would include a connection with the Burlington Northern mainline and the development of a yard and facilities area south and west of Miles City, at a point near Branum Lake. Information from the same disciplines as those disciplines of the DEIS was compiled. The impacts of the Option to the various resources (land use, socio-economic, transportation, energy, air quality, noise, safety, soils, hydrology, aquatics, terrestrial ecology, cultural resources, and aesthetic resources) were analyzed.[6] This addendum underwent the same review process as the DEIS and was considered during the 1985 administrative hearings.

Application for a Certificate of Public Convenience and Necessity

The DEIS became the TRRC's Exhibit H during the filing of its Application for the authority to construct and operate the Tongue River Railroad. Filed in June 1983, the application concerned only the proposed rail line of the DEIS, with a point of beginning either at a rehabilitated Chicago, Milwaukee, St. Paul and Pacific Railroad interchange yard or at a new facility within or adjacent to Miles City. If a new interchange yard was deemed necessary, two locations were considered in the Application - one east of Miles City and one southwest of that community. The application also proposed two alignments in and around the town of Ashland: 1) Ashland SE, the alignment entering Ashland from the north, heading first south then east up Otter Creek and back south toward the proposed Montco Mine; and 2) Ashland NW, the alignment passing near the fire station and crossing over the St. Labre Mission Road, then parallelling U.S. Highway 212 until crossing the highway on the western boundary of Ashland, and proceeding south to the Montco Mine.

The TRRC provided information about the proposal by responding to the following requirements of the application:

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[6]. See: U.S. Interstate Commerce Commission, "Addendum to Exhibit H, Burlington Northern Option, Draft Environmental Report, Finance Docket No. 30186; Tongue River Railroad Company - Construction and Operation", 1984.

a) A description of the proposal and the significant terms and conditions, including consideration to be paid (monetary or otherwise).

b) Details about the amount of traffic and a general description of commodities.

c) The purpose of the proposal and an explanation of why the public convenience and necessity require or permit the proposal.

d) As Exhibit C, a map which clearly delineates the area to be served including origins, termini and stations, and cities, counties and States. The map should also delineate principal highways, rail routes and any possible interchange points with other railroads. If alternative routes are proposed for construction, the map should clearly indicate each route.

e) A list of the counties and cities to be served under the proposal, and whether there is other rail service available to them. The names of the railroads with which the line would connect, and the proposed connecting points; the volume of traffic estimated to be interchanged; and a description of the principal terms of agreements with carriers covering operation, interchange of traffic, division of rates, or trackage rights.

f) The time schedule for consummation or completion of the proposal.

g) If a new line is proposed for construction: (1) the approximate area to be served by the line; (2) the nature or type of existing and prospective industries (e.g., agriculture, manufacturing, mining, warehousing, forestry) in the area, with general information about the age, size, growth potential and projected rail use of these industries;

(3) whether the construction will cross another rail line and the name of the railroad(s) owning the line(s) to be crossed.[7]

The TRRC also provided operational data under exhibit D, which represented "an operating plan, including traffic projection studies; a schedule of the operations; information

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[7]. Tongue River Railroad Company, before the U.S. Interstate Commerce Commission, "Application of Tongue River Railroad Company for Authority to Construct and to Operate a Line of Railroad in Custer, Rosebud, and Powder River Counties, Montana," Finance Docket No. 30186, pp. 9-21.

about the crews to be used and where employees will be obtained; the rolling stock requirements and where it will be obtained; information about the operating experience and record of the proposed operator unless it is an operating railroad; any significant change in patterns of service; any associated discontinuance or abandonments; and expected operating economics."[8]

Financial information was also requested and given, concerning, e.g., the manner in which the applicant proposed to finance the construction, the kind and amount of securities to be issued, the approximate terms of their sale and total fixed charges, the extent to which funds for financing were now available, and whether any of the securities issued would be underwritten by industries to be served the proposed line.[9]

In January 1984 the TRRC submitted a revised application under 49 U.S.C. 11301 and 49 U.S.C. 11302, for authority to issue securities. The TRRC requested the issuance of $175 million in short-term notes to provide funds for the construction of the rail line, as well as the issue of the same amount in long-term notes. The latter notes would be used to retire the short-term notes and, when issued, would constitute the long-term permanent debt obligation of the TRRC.[10]

The applications were the subject of the administrative hearings, also referred to in the above discussion of the DEIS, held by the ICC in January 1985. During the six days of public hearings (January 16-18, 21-23), the TRRC submitted some 44 exhibits, including 147 pre-filed verified statements. Most of the TRRC witnesses were subject to cross-examination by counsel for the Northern Plains Resource Council (NPRC), the opponent of

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[8]. Tongue River Railroad Company, before the U.S. Interstate Commerce Commission, "Application of Tongue River Railroad Company for Authority to Construct and to Operate a Line of Railroad in Custer, Rosebud, and Powder River Counties, Montana," Finance Docket No. 30186, p. 25.

[9]. Tongue River Railroad Company, before the U.S. Interstate Commerce Commission, "Application of Tongue River Railroad Company for Authority to Construct and to Operate a Line of Railroad in Custer, Rosebud, and Powder River Counties, Montana," Finance Docket No. 30186, p. 26.

[10]. Tongue River Railroad Company, before the U.S. Interstate Commerce Commission, "Application under 49 U.S.C. 11301 and 49 U.S.C. 11302, for Authority to Issue Securities, or to Assume Obligation or Liability in Regard to Securities of Another Person," Finance Docket No. 30186, Subfile No.1, January 6, 1984.

the TRRC who appeared at the hearings. The TRRC also responded to discovery requests from the NPRC concerning the construction, market, revenues, financial plan and business structure of TRRC. Representatives of the ICC's Section on Energy and Environment were cross-examined by NPRC and the TRRC both on the procedure for developing the DEIS and the substance of the DEIS itself.[11]

TRRC Mitigation Plan

In April 1985 the TRRC filed with the Interstate Commerce Commission a "Proposed Master Mitigation Policy and Plan for the Tongue River Railroad Company". This plan was subject to the same review process as was the DEIS.

The plan had the objective of providing specific mitigative measures for the various disciplines discussed in the DEIS. Potential impacts and suggested mitigative measures were discussed for each discipline. To the extent that the mitigative measures relate to environmental matters, they were discussed in the mitigation plan. However, it should be realized that, when mitigative measures relate more to issues of convenience, they would be the topics of negotiation between the Applicant and affected landowners.

The TRRC's mitigation plan presented measures for the impacts to land use, socio-economics, transportation, air quality, noise, safety, hydrology and water quality, aquatic ecology, terrestrial ecology, and cultural resources. A few of the components of the mitigation plan are discussed here.

The mitigative measures proposed for land use impacts addressed the impacts to agricultural operations, the impact to the Livestock and Range Research Station (LARRS), and impacts to the Miles City Fish Hatchery. Plans for social and economic impact mitigation include the provision by the Applicant of a consultant for the Rosebud County Commissioners. This individual would assist Ashland and other communities in addressing problems attributed to the railroad and accompanying mine development. There are numerous mitigative measures for transportation impacts, including the maintenance of normal traffic flows on Interstate 94 and U.S. 212 during the construction of crossings. Once the railroad was constructed, all grade crossings of public roads should be equipped with warning signs and devices in compliance with state and federal regulations.

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[11]. Tongue River Railroad Company, before the U.S. Interstate Commerce Commission, "Post Hearing Brief of the Tongue River Railroad Company," Finance Docket No. 30186, Subfile No.1, March 8, 1985, p. 16.

The mitigative measures proposed for air quality impacts concerned 1) the introduction of air pollutants in the form of the products of combustion, generated by construction equipment and railroad engines, and 2) the generation of increased quantities of fugitive dust, as a result of devegetation, earth moving, general equipment operation, and increased vehicular traffic on unpaved roads. There would be numerous mitigative measures for noise impact mitigation, including the scheduling of all major noise-producing construction activities during the weekday and daylight hours. During the operation of the railroad, TRRC trains should observe standard regulations regarding speed limits in incorporated areas. The mitigative measures for safety impacts include the development of 1) an internal emergency response plan, 2) a wildfire suppression and control plan for fires, 3) an oil spill prevention and control plan, and 4) toxic materials spills plan. The TRRC also should establish cooperative relationships with all local and state agencies that have responsibilities for disaster/emergency planning.

The mitigative measures for hydrologic and water quality impacts include the submittal of the various permits required by state and federal agencies - the U.S. Army Corps of Engineers "404" permits, the Montana Department of Health and Environmental Sciences "310" permits and "Turbidity Exemption" permits. The plan for aquatic ecology impact mitigation requires the conduct of detailed, site-specific inventory work of potential impact sites, upon the completion of third phase engineering. The objective of the terrestrial ecology mitigation plan would be to provide additional information and options for avoiding unnecessary impacts to vegetation and wildlife. Mitigative measures would include the timing of construction activities and the reclamation of the right-of-way.

The mitigative measures for cultural resources impact include the development of a Site Investigation, Inventory, and Action Plan (SIIAP). The SIIAP will detail: 1) the procedures to be followed in conducting an intensive pedestrian survey of the alignment, and 2) the steps to be followed in treating cultural resources that are determined to be eligible for listing on the NRHP and that might be adversely impacted by the construction and operation of the railroad.

Related Activities: Permits and Easements

When TRRC filed its application and Exhibit H, it also initiated review of the data required by the U.S. Army Corps of Engineers for 404 permit applications. U.S. Army 404 Permits (Dredge and Fill) were required for three crossings of Otter Creek and one crossing of the Tongue River. A 404 application contains the following information: 1) a general description of the project; 2) a detailed engineering of crossings; and 3) an

impact assessment. Along with its applications, the TRRC provided copies of bridge locations, showing plan, elevation, pier and abutment sections, and ownership information. Its applications detailed construction dates, methods and requirements. For instance, the quantity of the river alluvial material that would be excavated was given, along with the dimensions of the disturbed areas. Specific steps were proposed to reduce the adverse effects. The 404 permits were granted to TRRC in September, 1986.

The TRRC has also filed applications with the Montana Department of Highways for the crossings of Interstate 94, Highway 212, and the Tongue River Road. These applications require information as to the location of the crossings, the engineering requirements of the bridges, and pertinent transportation information.

The TRRC has filed easement applications for four state sections. The state of Montana is asking for a Preliminary Environmental Review of the following parcels in which it has an interest: Sections 4 and 5 in Township 7 North, Range 47 East; section 36, Township 4 North, Range 46 East; section 36, Township 2 North, Range 44 East; and section 27, Township 1 South, Range 44 East.

Appendix B

Tongue River Railroad

MASTER MITIGATION PLAN

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APPENDIX B

A MASTER MITIGATION POLICY AND PLAN

FOR THE PROPOSED TONGUE RIVER RAILROAD PROJECT

1.0 INTRODUCTION

Environmental impacts associated with the construction and operation of the Tongue River Railroad are discussed in the environmental documentation prepared for this proceeding. Numerous suggested mitigation measures to be applied to avoid or lessen impacts are also presented in the documentation. It was recognized, during preparation of the Draft Environmental Impact Statement (DEIS), that final and more specific mitigative measures would have to await comments on the DEIS and testimony at the proceedings. With these aspects of the proceedings now completed, it is appropriate to consider specific mitigative measures that can be applied in this case. The purpose of this Master Mitigation Plan is to provide a more definitive framework for mitigation planning and to provide ultimately for the just compensation of economic and environmental loss due to the Tongue River Railroad Company (TRRC).

The plan is divided into various sections, conforming to the topics discussed in the environmental documentation. Potential impacts and suggested mitigative measures are discussed for each discipline. It should be noted that many of the topics presented during the proceedings relate to site specific concerns of individual landowners. To the extent that these issues relate to environmental matters, they are discussed in this document. However, the Section on Energy and Environment (SEE) recognizes that many of the site specific concerns will be the topics of negotiation between the Applicant and affected landowners.

The Section of Energy and Environment emphasizes that this plan is not the only method available to protect the interests of the affected landowners or other affected parties. Many of the specific mitigation measures mentioned in the hearings and in comments on the draft mitigation plan are subject to negotiations for right-of-way purchase or easements. The State of Montana's concerns have been addressed in this document. However, the State retains the right to expand these mitigation measures in granting easements across state lands.

Similarly, the areas subject to landowner/railroad negotiations have been identified in this and other documents and mechanisms have been suggested to facilitate right-of-way discussions. Montana statute protects the integrity of those negotiations. Montana law provides for the appointment of qualified, disinterested condemnation

commissioners, should right-of-way negotiations between the parties be unsuccessful. The commissioners are required to assess compensation at current, fair, market value (MCA 70-30-207, 70-30-302). There is significant latitude available to the commissioners to provide compensation to the affected landowners to cover direct acquisition of land, severance, and depreciation damages for non-contiguous lands.[1] A combination of provisions outlined in this mitigation plan and the negotiation process, protected by Montana law, will place the affected landowners on strong footing with regard to addressing the environmental impacts to their property.

2.0 LAND USE IMPACT MITIGATION

Land use impacts can be divided into three groups for mitigation purposes: (1) impacts to agricultural operations; (2) impact to the Livestock and Range Research Station (LARRS); and (3) impacts to the Miles City Fish Hatchery. Many of the procedures and measures implemented under this topic will be useful under other disciplines, as well. As a result, Land Use is considered to be of primary importance in terms of both impact and mitigation. This is underscored by the primacy of agriculture as the regional land use and economic base, not only for the Tongue River/Otter Creek area, but on a regional and statewide basis. It should be noted that the level of specificity varies in terms of mitigation suggested for the three groups listed here. This is due in part to the varying requirements placed on the applicant by federal law.

The LARRS is federal property and subject to Department of Agriculture easement procedures and requirements. TRRC's easement application for the proposed crossing of LARRS was filed with the Department of Agriculture in January 1985. The application for an easement across the facility constitutes an independent permitting process and requires the level of detail presented in this Draft Master Mitigation Plan. Similar efforts will be undertaken with the State of Montana when easement applications are filed with the Department of State Lands and the Department of Fish Wildlife and Parks. The same specificity will undoubtedly result from negotiations with the 39 individual ranchers along the proposed right-of-way (ROW). As previously noted, that negotiation process is subject to provisions in Montana law concerning eminent domain. At this point, it would be inappropriate to bind either the railroad or an individual landowner to detailed measures that either party might want to change at some future date.

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[1]Meagher County Newlan Creek Water District v. Walter, 169 M 358, 547 P2d 850 (1976); State Highway Commission v. Renfro, 161 M 251, 505 P2d 403 (1973); State v. Hoblitt, 87 M 403, 288 P 181 (1930).

2.1 Agricultural Operations

2.1.1 General

The major goal of all mitigation measures directed at individual agricultural operations should be to minimize the effect of the railroad on day-to-day operations of the existing ranches. The negotiations and planning process should focus on the following objectives:

(a) Maintaining the integrity of each operation as an independent agricultural enterprise.

(b) Maintaining the economic vitality and productivity of each operation at levels generally approximating the current situation.

(c) Developing and implementing measures which will preclude the necessity for significant time/labor increases due to the existence of the railroad.

(d) Identifying parcels which will no longer be economically viable for present uses, and developing alternative uses or appropriate compensation.

(e) Implementing measures to limit or preclude nuisance impacts of the railroad.

With these goals in mind, the Applicant should undertake negotiations with individual landowners during acquisition of the ROW. By law, the Applicant will be required to negotiate in good faith with the individual landowners. Firm commitments as to the specific measures to be taken to attain the above-stated goals will be made and documented by the parties. Areas of concern that should be addressed include, but are not limited to, the following items.[2]

(1) Direct and Indirect Land Loss. Each agricultural operation that is crossed by the Tongue River Railroad will experience some loss of agricultural land due to inclusion in the ROW. The mitigation for such loss is direct compensation. This compensation is properly negotiated on an individual basis between each landowner and the Applicant.

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[2]These areas of concern have been identified through review of the comments on the Draft EIS and supplement thereto, review of testimony delivered at hearings, and consultation with NPRC staff members. NPRC's suggested mitigation recommendations were attached to its post-hearing brief as Appendix 4.

Indirect land loss, due to severance of parcels, will also occur in certain situations. The standards to be used in assessing that indirect loss will differ by landowner, and landowners will be given the opportunity to identify severed parcels in negotiations. It is possible to use some severed parcels for alternate agricultural purposes, thus mitigating to some extent the total loss. The Applicant should assist landowners in identifying and developing such uses where appropriate, and in applying a combination of such assistance and compensation, where necessary and agreed upon during ROW negotiations.

(2) Displacement of Capital Improvements. Where capital improvements such as fences, wells, corrals, and irrigation systems are displaced, the Applicant should relocate or replace these improvements where possible. Generally, these capital improvements can be replaced. In some instances, it may be necessary to provide compensation for such displacements. Specifically, fences should be reconstructed according to the design specifications previously existing on the ranch or to specifications requested by the landowner and agreed to during negotiation. Where parcels have been redesigned, the Applicant should erect new fences to conform to the redesigned pasture parcel. Similarly, corrals, haysheds, etc., should be relocated within the redesigned land parcels.

Where wells and springs are displaced, the Applicant should replace the existing improvements to the current standard. For instance, every effort should be made to assure the continued use of natural springs. Often, this can be accomplished by the installation of culverts of proper design and location. In instances where a well is displaced, the Applicant should construct a new well and insure that there will be no additional cost to the rancher for the operation of that well beyond the cost incurred with the previous well.

Where irrigation systems, whether they be gravity or mechanical, are disrupted or displaced, the first goal of the Applicant should be to assist the landowner in redesigning the system in order to continue its current use. For instance, culverts should be installed and ditches reconstructed for gravity systems. For sprinkler systems and other mechanical devices, all attempts should be made to substitute a redesigned system. Where this is not possible, the Applicant should negotiate with the landowner for a combination of compensation and reuse of the parcel for some other purpose.

(3) ROW Fencing. The Applicant should construct ROW fencing along the entire line according to specifications most

suitable to the landowners and consistent with industry standards. If special fencing needs or specifications are requested on individual ranches, it will become a matter for negotiation. Likewise, if, in some cases, landowners would prefer to forego fencing of the ROW in order to provide easier access for livestock across the rail line, the Applicant should consider such a request. It should be noted that such a request could be honored only after matters of safety and liability are considered.

(4) Access Restrictions. The Applicant has tentatively identified 77 cattle passes that would be installed along the ROW. These cattle passes would consist of an oval, corrugated metal structure, roughly 12 ft. high and 11.5 ft. wide at the base. The proposed locations for these cattle passes were developed by the engineering consultants, using aerial photography, on-the-ground inspection, and information from individual landowners. The locations of these cattle passes were indicated in second phase engineering plan and profile sheets, which were provided to the individual landowners for comment. The Applicant should work with landowners during third phase engineering and ROW negotiations to identify the locations of any additional cattle passes and to finalize the placement of those previously identified. In addition, locations for grade crossings for equipment, etc., will also be determined through negotiations and engineering practicality.

In some cases, landowners may prefer a different type of cattle pass than that currently proposed by the Applicant, e.g., box culvert, trestle, etc. Recognizing that different types of cattle passes could be far more costly than those currently proposed, the Applicant should work with the individual landowners to develop an acceptable alternative. For instance, one alternative might be to install a trestle-type structure in lieu of two or three corrugated metal culverts. In such a case, the cost of the trestle could be basically the same as the culverts, and thus an acceptable compromise. In other instances, such as where the placement of a cattle pass is not feasible from an engineering standpoint due to an extensive cut, the Applicant should discuss with the landowner the possibility of a bridge over the railroad to provide access for cattle.

(5) Impacts During Construction. During third phase engineering, the Applicant should work with individual landowners to avoid unnecessary conflict between construction-related activities and ranching operations, such as moving cattle between pastures during certain seasons of the year. However, it is recognized that inconvenience to the ranchers cannot totally

be avoided if a construction schedule is to be maintained. Temporary inconvenience to the rancher from construction-related activities should be considered during ROW negotiations.

All construction-related activities should be confined to the purchased or leased ROW, and to the construction camps located along the rail line. The specific location of construction camps should be solely a matter of negotiation between individual landowners and the Applicant.

Construction of the rail line will require bonding for Applicant's contractors. In the event of contractor-caused damage to a landowner's property, lengthy negotiations between the individual landowner and the contractor's bonding agent could ensue. In order to speed this process of negotiation, the Applicant should require its contractors to place sufficient funds in an escrow account to pay for incidental damages incurred during construction. Payment could be advanced from this fund, pending resolution of any liability on the part of the contractor for the damages incurred. Specifics of such a plan, including definitions of liability, would have to be negotiated between the parties, ICC, TRRC and affected landowners, prior to construction.

The Applicant should require its contractors to police construction camps during operation, to control the personnel in camps, and limit those personnel to workers directly involved in the project. Upon completion of construction, the camps should be reclaimed to their previously existing use.

The Applicant should appoint a railroad representative to work with the prime and subcontractors and the landowners to resolve any problems developing during construction. This individual should have direct access to the management of the Tongue River Railroad Company.

(6) Impacts from Operation. Although every effort has been made to identify impacts from operation of the Tongue River Railroad, unanticipated problems could develop once the line has been constructed. In order to address these problems, the Applicant should appoint a representative to meet with landowners to discuss these problems after the railroad has become operational. The Applicant's representative should work with individual landowners to resolve any unforseen problems that develop and to establish good landowner/railroad relations.

2.2 Impacts to Fort Keogh Livestock and Range Research Station (LARRS)

2.2.1 General

The potential impacts to LARRS have been explored in detail, both by the ICC's consultants and by LARRS personnel. LARRS personnel have taken an active role in development of the proposed route in coordination with the Applicant's engineers. In addition, LARRS personnel have examined the proposed route in detail and have developed a series of mitigation needs and procedures that were submitted to the Applicant. Those measures to which the Applicant has committed are included here. It is expected that these and other mitigation measures will be attached to a final easement agreement for ROW across the facility.

2.2.2 Specific Mitigation Concerns and Resolutions

(1) LARRS has requested a grade-separated crossing for primary access to the southeast portion of the station. Access is currently obtained through a box-type culvert beneath U.S. Interstate 94. The alignment, as detailed in the proposed Branum Lake Option, calls for crossing under I-94. If this option is utilized, the Applicant will provide a non-blocked, grade-separated crossing from LARRS to insure adequate access to the southeast portion of the station. The Applicant is currently exploring the possibility of bridging over I-94 at this point. If this plan is feasible, then existing access would not be affected or altered by the railroad.

(2) LARRS has requested that sufficient flood drainage be provided north of the Camel's Back. The Applicant will provide drainage with culverts designated to pass 100-year design floods.

(3) LARRS has requested that a grade-separated crossing be located on the Burlington Northern Railroad (BN) ROW adjacent to the LARRS headquarters facilities. The Applicant has agreed to provide a grade-separated crossing at this location.

(4) LARRS has requested two wells in the No. 3 pasture. One well is located in Section 13 and the other in Section 12. The Applicant has agreed to construct two new, non-electrified, wells or one non-electricfied well and a pipeline, whichever is most appropriate.[3]

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[3]LARRS staff have assumed responsibility for electrifying these and other wells, should they so desire.

(5) LARRS has requested two railroad crossings in the No. 3 pasture. Underpasses would be desirable; however, crossings over the track would work. One is located from Section 13 to 18 and the other from Section 12 to 7. A road (all weather) from the Section 12 to 7 crossing along the track to Section 18 would also work. The Applicant has agreed to provide at least one separated grade crossing. The other crossing would be at grade.

(6) LARRS has requested rip-rapping along the river in Section 6 in the 2C Bend pasture, if necessary. The Applicant plans to provide all necessary rip-rapping to insure the integrity of the railroad embankment.

(7) LARRS has requested an underpass for cattle movement in Section 6. The Applicant has agreed to provide this underpass.

(8) LARRS has requested a vehicle pass (18x14 ft.) in Section 36 near the existing road to allow access to Lower 2C Bend. The Applicant has agreed to a cattle underpass and an at-grade crossing for equipment at this location.

(9) LARRS requests a track crossing for equipment where the track crosses Paddy Fay Creek. This concern should be resolved by Applicant's commitment to construct a bridge at Paddy Fay Creek.

(10) LARRS requests an access road along the river from Section 23 (Lower Flood) to Section 25, 25 and 36 (2C Bend). The Applicant has agreed to provide a road parallel to the railroad ROW for access.

(11) LARRS requests that the Applicant relocate the water tank and pipeline in Lower 2C Bend and locate a new tank in the north end of Lower 2C Bend. Applicant has agreed to relocate the existing water tank as well as to locate a new tank in the north end of Lower 2C Bend.

LARRS requests that the proposed alignment be located as close to the hill between Upper and Lower 2C Bend as possible to eliminate the waste land. The alignment submitted to the ICC in June 1983 incorporates this suggestion and is incorporated as the the Applicant's proposed action.

(13) LARRS requests rip-rap along the river in the North Tongue River Bend. The Applicant has agreed to rip-rap along the river in the North Tongue River Bend, and has initiated 404 applications for this site with the U.S. Army Corps of Engineers.

(14) LARRS requests that the TRRC relocate the well in North-South Tongue River fence line to water both pastures. The Applicant has agreed to relocate this well.

(15) LARRS requests a vehicle underpass 18 ft. wide by 14 ft. high on the road from Lower Flood to North Tongue River Bend. After considerable discussion with LARRS, it was determined that a cattle pass under the tracks with an equipment crossing "at grade" with the tracks could be used in place of the 18 x 14 ft. underpass.

(16) LARRS requests that the Applicant relocate the well between Lower Flood and Lower Flood Bend. (Pipeline system to serve Lower Flood, Lower Flood Bend, South Lower Flood Bend, and Middle Flood.) The Applicant has agreed to relocate the well between Lower Flood and Lower Flood Bend.

(17) LARRS requests that the TRRC relocate the fence between Lower Flood and Lower Flood Bend pastures. The Applicant has agreed to relocate the fence.

(18) LARRS requests that the Applicant place culverts under the track through Lower Flood to accommodate the flood dike system. Applicant has agreed to place culverts under the trackage through the Lower Flood area which will accommodate the flood dike system.

(19) LARRS requests a road along the east side of Hill pasture, and a vehicle pass to North Tongue River pasture. The Applicant has agreed to these requests.

(20) LARRS requests a vehicle pass by old Lone Pine road to access Lower Flood Bend. The Applicant has agreed to construct a vehicle pass adequate for pickups and cattle, with an at-grade crossing for larger equipment.

LARRS requests that, where the railroad meets and removes the all-weather road in Hill Pasture, provisions for new road be provided. The Applicant has agreed to replace this road.

(22) LARRS requests that an underpass be provided where the railroad crosses the gravel road in Hill Pasture. The Applicant has agreed to provide a grade-separated crossing.

(23) LARRS requests that a well be located in Hill Pasture to replace pit reservoir. The Applicant has agreed to provide a non-electrified well.

(24) LARRS requests that the Applicant relocate the tank between Russian wildrye and Hill Pasture in Section 9. The Applicant has agreed to relocate the tank.

(25) LARRS requests an 18x14 ft. vehicle underpass for access to highway tube and 3C Bend Pasture. The Applicant has agreed to provide a grade-separated crossing at this location.

(26) LARRS requests that a well for 3C Bend and fish hatchery be provided. The Applicant has agreed to provide a non-electrified well at this location.

(27) LARRS staff note that they may need a well relocated if the track is too close in the Nursery area. Should the proposed action be constructed, a relocation of the well would be provided by the Applicant. However, under the Branum Lake option, the Nursery will not be affected or disturbed.

Further discussion with LARRS personnel is expected, and it is likely that further detail and clarification will be required. This does ot constitute a final easement agreement.

2.3 Impacts to the Miles City Fish Hatchery

The Supplement to the DEIS presents a discussion of potential impacts to the Miles City Fish Hatchery. Since the issuance of that document, the State of Montana has completed further studies related to future development of the hatchery and adjacent lands. Expansion of the hatchery would conflict with the proposed routing of the Tongue River Railroad. It should be noted that acquisition of ROW across State of Montana property requires a formal application process that affords adequate safeguards and mechanisms to assure that the hatchery, either in its present form or after expansion, will not be adversely affected.

The proper forum for detailed mitigation plans and commitments regarding the hatchery will be the State of Montana easement application process. The state is fully empowered to delineate the terms or conditions under which it will allow a railroad ROW across state property.

(1) If the Branum Lake Option is built, it will require that the Fish Hatchery expansion plans be altered, either by moving a portion or all of the facility. In doing so, new plans will have to be prepared for the project. The Applicant should assist the Department of Fish, Wildlife and Parks in the revised planning process, specifically as the new plans would focus on effects of the railroad on hatchery operations, e.g. noise, vibration, potential fuel leaks, etc.

(2) The Applicant should continue to confer with the Department of Fish, Wildlife, and Parks in regard to expansion plans for the hatchery. Every effort should be made by both parties to inform the other as to continuing developments.

3.0 SOCIAL AND ECONOMIC IMPACT MITIGATION

3.1 General

The environmental documentation provides detailed information on those social and economic changes that are associated with development of the Tongue River Railroad. The projections contained in the documents cannot be expected to reflect perfectly every possible impact, but the data will serve to provide state and community planning agencies and personnel with the necessary information to meet the demands for increases in public facilities, personnel, and services.

The environmental documentation demonstrates how, in most cases, the increase in tax revenues accruing to local governments will more than offset increases in the costs of providing increased services and new or expanded public facilities. Local government planning agencies will be able to incorporate this information in their short term and long range planning efforts, thus assuring that proper planning and effective mitigation will be in place prior to the incurrence of impact.

In certain cases, local government and, thus, planning capabilities do not exist in any form capable of addressing the problems that could be presented by the construction and operation of a railroad and accompanying mining development. The community of Ashland, in particular, is not prepared to confront the changes and problems that will occur there. Of particular importance to Ashland will be population growth in the community and the corresponding increased demand for community services.

The Applicant should consult with the county and local governments for the purpose of assisting impacted communities in addressing the problems they face. Among the goals of such an effort would be to:

(1) Assist the community of Ashland in developing a community organization representative of diverse opinion and point of view, for the purpose of addressing and dealing with railroad-related social and economic impacts.

(2) Assist planning agencies and community groups in interpretation and understanding of the data developed in the environmental documentation. The ultimate goal of this task would be to make the information useful on an individual level for businesses and agencies. As the information is updated, for one reason or another, by state or federal agencies, the new information would be made available to these local groups.

(3) Assist planning agencies and community groups in identifying those resources available to them to help deal with antici-

pated impacts, and as a follow-up, to assist these groups in taking advantage of those resources as appropriate. A prime example of such a resource would be monies generated by the Montana Coal Severance Tax, administered by the Montana Coal Board. Numerous other resources and avenues of dealing with problems exist, and the individual would provide guidance in identifying same.

To accomplish these goals, the TRRC will provide all practical assistance to those government planning agencies involved. Of primary importance will be making available the social and economic data generated in baseline studies. This should be quite useful if understood and practically applied by planning agencies.

4.0 TRANSPORTATION IMPACT MITIGATION

4.1 General

Impacts to local transportation systems and facilities that will occur as a result of the development of the proposed Tongue River Railroad can be divided into two general categories. The first category is impacts that will occur during construction of the rail line. The second category is impacts that will result from actual train traffic over the line. Much of the mitigation that will occur for the anticipated impacts will result from ROW negotiations between the Applicant and private landowners or governmental agencies. Some of these anticipated impacts are discussed in the Land Use section, already presented. Most important in terms of this discussion are those impacts that will directly affect public roadways and other existing affected public roadways and other existing transportation systems.

4.2 Construction Impacts

Construction-related impacts will generally involve either increases in vehicular traffic on local public roadways, with the attendant likelihood of greater inconvenience and increased likelihood of accidents, or direct disruption of normal traffic patterns due to construction activities across a road or highway.

The Applicant could mitigate the problem of increased vehicular traffic on local public roads and highways by implementing the following measures during construction activities:

(1) During construction, contractors should be encouraged to provide transportation to the work site from some central location on a daily basis. This central location may be one of the work camps, a point near the northern terminus at Miles City, or some predesignated point elsewhere along the line,

selected to prevent an unnecessary traffic on public roads in the area. Details should be worked out with contractors based on final design criteria, specific tasks or phase of construction, numbers of personnel and equipment and work site.

(2) To the greatest extent possible, all construction-related traffic, including worker transportation as well as equipment movement should be confined to the "pioneer road" that will be developed within the ROW. In instances where it is not practical to confine all traffic to this road, the Applicant or the individual contractors should make necessary arrangements with the appropriate landowners or agencies to gain access from private or public roadways which will minimize traffic impacts to the greatest extent possible. (The "pioneer" road would be used only during construction of the railroad grade and would be relaced by the grade prior to the placement of track).

(3) All Applicant vehicles and equipment, and vehicles and equipment owned and operated by contractors working on the project, should strictly adhere to speed limits and other applicable laws and regulations when operating such vehicles and equipment on public roadways.

(4) In cases where traffic along a public roadway may be disrupted during construction of the railroad, the Applicant should comply with all requirements of the Montana Department of Highways or other appropriate agency. In the absence of such requirements, the Applicant should endeavor to maintain at least one open lane of traffic at all times. Specific plans should be developed by the Applicant, and adhered to by contractors, to assure the quick passage of emergency vehicles. These plans should be coordinated through appropriate local agencies. All construction plans affecting public roadways will have to be submitted to the Montana Department of Highways for review and approval.

(5) The Montana Department of Highways will provide various guidelines and stipulations for crossing such highways as Interstate 94 and U.S. 212. Maintaining normal traffic flows on these roadways throughout construction should be the principal goal of mitigation planning. When this is not possible, the Applicant should provide temporary detours and comply with mitigation measures required by state or local agencies.

(6) In those instances where the disruption of normal traffic patterns or the temporary blockage of important roads or

highways is inevitable, the Applicant should work with the Montana Department of Highways or other appropriate agencies and the contractors to develop plans to time construction activities to coincide with periods of least impact. This may include such measures as working through the night time hours, or perhaps around the clock to speed construction in some locations.

(7) All signing and work zone safety shall be in accordance with the Manual of Uniform Traffic Control Devices.

4.3 Operational Impacts

A significant impact from operation of trains along the new railroad line will be traffic delays at crossings which are not grade separated. Just as important, but less frequent, is the possibility of accidents involving trains and vehicles or pedestrians. To address that impact, the Applicant should undertake the following:

(1) All grade crossings of the new rail line by public roadways should be equipped with warning signs and devices in compliance with current state and federal regulations, requirements and suggestions. To determine the appropriate warning devices for each new crossing, the policy for Railroad Crossing Protection of the Montana Department of Highways should be applied to each crossing, and the appropriate measures implemented.

(2) A combination of Tongue River Railroad and BN traffic immediately downline from the connection at Miles City may require the elimination of certain at-grade crossings and their replacement with grade-separated structures. The Applicant should commit to working with the BN, the Montana Department of Highways, and the Town of Miles City to alleviate any traffic problems in the future. Data developed by the Applicant and the commission on the eventual problem at crossings in Miles City could be used as a starting point in these discussions.

(3) The Applicant should adhere to all state and federal regulations regarding train operations. Such regulations provide for maximum durations of crossing blockage, speed limits within and outside of incorporated areas, candlepower for train lighting, etc.

It should be noted that the State of Montana ROW easement process discussed under 2.3 affords the opportunity to apply specific stipulations and requirements to the TRRC, thus safeguarding the public interest as regards traffic safety.

5.0 AIR QUALITY IMPACT MITIGATION

5.1 General

Impacts to air quality resulting from construction and operation of a new rail line will fall into two general categories. These categories include: (1) the introduction of air pollutants in the form of the products of combustion, generated by construction equipment and railroad engines; (2) the generation of increased quantities of fugitive dust into the air as a result of devegetation, earth moving, general equipment operation, wind; and (3) increased vehicular traffic on unpaved roadways. Simple techniques are available to mitigate these impacts. Since these techniques are universally applicable, and it is not necessary to delineate those that will be used only during construction. The Applicant should commit to the application of the following measures, either as company operational policy or as stipulations for contractors during construction:

(1) All heavy equipment and vehicles used in the construction, operation, and maintenance of the railroad should be subjected to regular inspection and maintenance to ensure that operation is in compliance with manufacturer's specifications and that equipment is running as cleanly and efficiently as possible.

(2) Strict speed limits should be established and adhered to on all access roads and within the ROW, to assure that fugitive dust emissions will be minimized.

(3) The Applicant should recommend to the individual contractors that they provide group transportation (as discussed under transportation impacts) to minimize vehicular traffic on unpaved roads in the area.

(4) When vegetation is removed from the ROW during the early stages of construction, the cleared areas should be kept to the minimum necessary. This will aide in the mitigation of the problems caused by wind erosion and vehicle borne fugitive dust.

(5) In areas where devegetation has taken place, revegetation efforts should commence at the earliest possible opportunity. In those areas where immediate revegetation is not possible, alternative stabilization measures should be implemented. These measures could include matting, mulching, and even mulching with seed and fertilizer. (More details on revegetation are presented section 10.3 of this Master Mitigation Plan.)

(6) Dust suppression at all work areas within the ROW and at work camps, staging areas, etc., should be accomplished with the use of water trucks. Arrangements for the acquisition of water should be made with either local landowners, agencies or associations. It is anticipated that such activities would occur regularly and frequently during the driest periods.

(7) Any open burning required for the purpose of slash disposal or for any other reason during construction or operation of the rail line should be conducted in strict accordance with local regulations. All necessary permits should be obtained and all necessary safety precautions observed.

6.0 NOISE IMPACT MITIGATION

6.1 General

Noise impacts that are likely to occur as a result of construction and operation of a new railroad fall into two distinct categories. The first category is noise associated with construction activities, heavy equipment operation, a variety of vehicular traffic, etc. The second category is the noise that will result from trains operating along the new rail line. Several mitigation strategies listed here can be employed to mitigate construction noise impacts. It should be noted that the level to which construction noise impacts will occur to sensitive receptors is dependent upon route selection and final centerline location. More specific measures will be apparent at that time. Mitigation of noise impacts from train traffic is difficult, and is dependent to some degree upon volume of traffic as well as volume of downline traffic of all types on the BN mainline. As a result, most of the measures suggested here would require negotiations between the Applicant and the BN for any final implementation.

(1) When feasible, all major noise-producing activities during construction should be scheduled to occur during the weekday and daylight hours.

(2) In cases where such activities as the normal schoolday would be interrupted by noise interference, the Applicant should make every attempt to schedule the activities in a manner most acceptable to those impacted. This could include weekend or evening work in some cases. If this is not possible, consultation with school officials may result in workable solutions. This concern is specific to the Ashland area and St. Labre school.

(3) The Applicant should require all contractors to use internal combustion equipment only if properly installed mufflers are

provided. Further, all equipment used for construction should comply with all applicable federal, state, and local noise regulations which reflect the current feasibility and practicality of equipment and activity noise reduction.

(4) During operation, Tongue River Railroad trains will have to observe standard regulations regarding speed limits in incorporated areas to limit noise impacts. The Applicant should observe those same speed limits while trains are passing through the unincorporated community of Ashland due to the proximity of numerous dwellings.

(5) The TRRC rail corridor extends through primarily rural and sparsely populated areas. Most of the dwellings in these areas are outside of the threshold for significant disturbance from noise. However, specific areas in Ashland and Miles City could experience interruptions from noise associated with TRRC trains. A noise monitoring program should be established at these locations to measure the noise levels as train traffic increases during later years of operation. This information would assist the TRRC and community officials in developing noise abatement strategies as they are needed.

(6) In special cases, more direct noise abatement measures may be required. For example, the Applicant has agreed to provide a tree buffer between the Spotted Eagle Lake recreation area and the ROW. This buffer would serve the dual purpose of easing the impact of noise upon those pursuing recreational activities and also moderating the visual impact to that area. Similar measures may be required on certain private holdings along the ROW. These would be identified during negotiations between the individual landowners and the Applicant.

7.0 SAFETY IMPACT MITIGATION

7.1 General

The heading Safety Impacts encompasses several broad areas of potential impacts. The first consideration under this heading is the prevention of construction-related accidents. A second consideration is the public safety as it relates to such occurrences as derailments, fuel spills, other toxic material spills, and other catastrophic events. A third general category includes the prevention and suppression of railroad-caused wildfire. Concerns regarding the potential for and response to train/vehicle and train/pedestrian crossing accidents are also topics considered here.

7.2 Construction Safety

Adherence to normal construction safety practices will minimize the potential for construction-related accidents. All contractors should hold safety meetings for their workers and assure that each person is cognizant of the safety measures and procedures expected in each work situation. Other actions which will enhance the overall safety situation include:

(1) Contractors should be encouraged to provide group transportation to the job site, as discussed under that heading.

(2) Speed limits for all construction vehicles and equipment, both on and out of the ROW, should be enforced.

7.3 Emergency Situations

A variety of events here classified as "emergency situations" could occur along the ROW, during either construction or operation of the railroad. These include such things as derailments, oil spills, and toxic substance spills. The Applicant should implement a number of general measures that can be used to initiate specific actions in response to emergency situations.

(1) Planning Framework. The Applicant should develop an internal emergency response plan, which is consistent with Montana State plans authorized under Title 10, Montana Code Annotated (MCA), in an effort to avoid duplication. Such plans could include:

a. Emergency notification plan whereby a priority list of agencies and individuals to be notified in a specific emergency is prepared. The plan would include names and phone numbers of individuals to be contacted in case of such events as an herbicide spill, fuel spill, range fire, and medical emergency.

b. Procedures to be followed by railroad operation and maintenance personnel in case of such an event, including specific responsibilities by individual.

c. Directions for most timely response and fastest emergency vehicular access to any particular section of the rail line.

d. Locations and inventories of all emergency equipment, and any standard operational equipment which may be useful in dealing with emergencies.

(2) Cooperative Planning/Contacts. The Applicant should establish cooperative relationships with all local and state agencies that have responsibilities for disaster/emergency planning and response. The Applicant should provide operation plans and copies of the response plans noted in item (1) above to such agencies for review and suggestions. Comments from these organizations should be incorporated as necessary. These state and local agencies are to include, but are not limited to:

a. Fire departments in Miles City, Broadus, Ashland, and other rural units along the route.

b. Local ambulance and emergency medical services, as well as air evacuation services in Billings.

c. Disaster and Emergency Services Division of the Department of Military Affairs, Helena. This is likely the most important contact in case of a major emergency in terms of developing a coordinated response.

d. The Montana Department of Health and Environmental Sciences (especially the Water Quality Board).

e. The Montana Department of Fish, Wildlife, and Parks.

f. The Montana Department of State Lands, Land Administration Bureau.

g. The Montana Department of Natural Resources and Conservation, Water Resources Bureau.

h. U.S. Department of Agriculture, Fort Keogh Livestock and Range Research Station.

i. U.S. Bureau of Land Management or U.S. Forest Service (recent reorganization proposals may transfer local segments of the Custer National Forest to the BLM for management).

j. Other local agencies or groups which are identified as key to disaster.

(3) Fire Prevention and Suppression. The Applicant should develop a wildfire suppression and control plan for fires occurring on the ROW as a result of traffic or undetermined causes. The following considerations should be included in the plan.

a. The plan should be developed after final engineering and overall operation plans are complete. This will afford planners the benefit of special information regarding exact location of centerline, access points, and equipment and personnel which might be of use in case such an event occurs.

b. State-of-the-art techniques for fire prevention and suppression should be evaluated and included in the plan as applicable. Where an industry-wide standard exists, it should be adhered to or improved upon.

c. During third phase engineering, the Applicant should attempt to provide the greatest possible access to all portions of the ROW, in terms of grade crossings and gates, in an effort to minimize response time. Certain areas adjacent to the ROW are more accessible than others. The Applicant should recognize topographic differences in providing access for emergency vehicles crossing the rail line. While there are no industry standards for determining the preferable distance between crossing points, it should be shorter in rougher terrain than it would be in more accessible areas. The Applicant should consult other railroads to ascertain the appropriate distance between access points.

d. Since the Applicant will be a significant taxpaying entity, it can be assumed that the emergency assistance of the various tax-supported fire districts will be an integral part of this plan [see item (2) above]. It should be noted, however, that many rural fire districts operate on a strictly volunteer, unfunded basis. In such cases, the Applicant should develop relationships with these local organizations for the purpose of implementing funding agreements. A formula should be established, based on criteria applied by other railroads in the region, to determine the amount of funding per group.

e. The Applicant should commit to all reasonable efforts to protect property, livestock, and the general public from damage due to Tongue River Railroad-caused fires. In addition, the Applicant should make every effort to assure adequate access to all areas on all sides of the ROW. All serious concerns and suggestions should be explored for practicality, usefulness, economic considerations, etc.

f. The Applicant should observe all applicable operational regulations promulgated by the Federal Railroad Adminis-

tration. This will also serve to minimize the potential for railroad-caused fires.

(4) Oil Spill Prevention and Control Plan. The Applicant should develop, in concert with the appropriate agencies and private concerns, plans to prevent spills of oil or other petroleum products, both during construction and operation and maintenance. The plans developed should include those stipulations that would be imposed on firms involved in construction of the rail line. An aspect of such plans would be the emergency notification procedures, discussed in item (1) above. Other items that would be included are:

a. Procedures for reporting spills.

b. Definition of what constitutes a spill.

c. Methods of containing, recovering, and cleaning up spilled oil.

d. A list of needed equipment and locations of same.

e. A list of all agencies and management personnel to be contacted, as in item (2) above.

f. Assurances that techniques and procedures to be employed in cleanup are representative of the best technology currently available.

In addition to the items listed here, the stipulations to be followed during construction would be developed, in the form of guidelines based on the tasks to be accomplished by the individual contractors. Among the stipulations that could be employed are:

a. Care during refueling to guard against overflows.

b. Storage of fuel only in metal storage tanks surrounded by impervious dikes capable of containing greater than the capacity of the tank.

c. Removal of waste oil to appropriate sites, away from the ROW.

d. Keeping equipment in good running order and conducting routine maintenance activities at locations removed from the ROW.

Specifics of these plans should be discussed and refined with the appropriate agencies, and the plans should be in force at the start of construction.

(5) Toxic Materials Spills. It is not anticipated that the Applicant will be involved with the transport of toxic materials. This consideration is included to account for the possibility that herbicides may be accidentally introduced to other than the designated portions of the ROW. (See vegetation discussion of noxious weed control.) The same general approach discussed under items (3) and (4) above should be taken, with immediate notification of the appropriate agencies and personnel being given priority equal to immediate containment. Procedures should comply with the law, regulatory guidelines, and the best technology currently available. Application of herbicides is a licensed activity and is done under strict supervision, and as such, response should be nearly instantaneous.

8.0 HYDROLOGY AND WATER QUALITY IMPACT MITIGATION

8.1 General

A wide variety of state and federal regulations and permit processes are in place to assure that overall water quantity and quality is not altered or diminished by activities such as the proposed Tongue River Railroad. Detailed permit applications are submitted to various agencies for the purpose of assuring that construction and operational activities on or near any waterways are conducted in such a manner as to provide minimal impact to those areas. Permit processes in which the Applicant is currently involved include:

(1) U.S. Army Corps of Engineers "404" Permit process for all bridges and other structures occurring on designated streams (perennial). This process is required for each major bridge crossing of the Tongue River and Otter Creek as well as each area where rip-rap is to be installed. This process requires detailed environmental data as well as construction data. Permits are issued with accompanying stipulations to limit environmental impact to the greatest degree possible.

(2) The "310" Permit process, jointly administered by the local Conservation Districts and the Water Quality Bureau of the Montana Department of Health and Environmental Sciences. This process is very similar to the "404" process previously discussed. Similar procedures for attaching stipulations to a permit also are followed.

(3) Temporary Discharge or "Turbidity Exemption" permits are being sought from the Water Quality Bureau of the Montana Department of Health and Environmental Sciences. These permits are required wherever construction activities may cross any stream bed or bank (ephemeral or perennial). As a

result, each crossing of a stream bed, dry or not, requires such a permit.

(4) Since the State of Montana holds title to the stream bed of the Tongue River, the bridge crossing will require additional authorization under the easement application process. The regulatory authority of the state, administered by the Department of State Lands, will further safeguard the public interest and the affected resource.

In addition to these very detailed permit processes, a number of other safeguards can be built into the final design of the rail line. Some of these include:

(1) All culverts and other drainage structures installed at ephemeral and perennial stream crossings will be designed to pass the projected 100-year flood.

(2) Where possible, the proposed route is designed to avoid the flood plain. Where the railroad grade does infringe upon the flood plain, drainage structures should be installed to assure that the grade does not restrict or re-route the 100-year flood.

(3) To prevent unnecessary degradation of water quality due to erosion, revegetation efforts should begin as soon as possible after construction is complete in a given area. (See revegetation section, 10.3.)

(4) Spills of fuel or other toxic or hazardous substances which may affect water quality should be addressed in the manner described in the section on safety.

(5) Construction of all stream crossings, including bridges and culverts and such activities as require stream bank encroachments (rip-rap, for example), should be timed to occur during periods of low or no flow in the streams affected. The vast majority of stream beds traversed by the railroad are dry most of the year, so such scheduling should not be difficult.

It also should be noted that a study has been conducted to determine the extent to which the Tongue River Railroad would constrict the flood waters from a disaster such as a breach of the Tongue River Dam. The study shows that the railroad grade would, to some extent, alter the inundation pattern, but would not lead to any increase in damages to humans, livestock or prop-erty. Further, it would not appreciably affect the disaster plans as discussed in the Tongue River Dam Emergency Warning and Evacuation Plan, published by the Montana Department of Natural Resources and Conservation.

9.0 AQUATIC ECOLOGY IMPACT MITIGATION

9.1 General

Impacts to acquatic resources from the proposed Tongue River Railroad are likely to occur only in those areas where the railroad grade directly infringes upon the stream bank or stream bed. Such places include river crossings requiring bridge construction and areas where rip-rap is required for stream bank stabilization. In coordination with state agencies, primarily the Department of Fish, Wildlife, and Parks (MFWP), the Applicant should proceed with detailed, site-specific inventory work of potential impact sites, upon the completion of third phase engineering. Based upon the results of the work, specific mitigative measures can be determined and applied. The biologist conducting the work would be subject to the approval of MFWP personnel.

(1) Aquatic Resource Sampling. For those locations where the proposed Tongue River Railroad would cross the Tongue River, or where extensive rip-rapping would occur, a three-part plan of study should be undertaken to identify aquatic resources. The results of the study would be utilized in the development of mitigation plans. The three-part plan of study includes: (a) a stream habitat survey to identify existing habitat features and values; (b) benthic macroinvertebrate sampling to identify community composition and numbers; and (c) fish spawning survey to determine the importance of the area to spawning of game fish.

a. Stream Habitat Survey. The stream habitat survey should utilize methods described in "Methods for Evaluating Stream, Riparian, and Biotic Conditions."[4] Stream transects would be established in appropriate locations to evaluate existing conditions and to monitor changes during construction. Along each transect, the following variables would be measured:

1. stream width
2. stream shore depth
3. stream average depth
4. pool (ft.)
   (a) quality

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[4]William S. Platts, Walter F. Megahan, and G. Wayne Minshall, "Methods for Evaluating Stream, Riparian, and Biotic Conditions," General Technical Report Int-138, Intermountain Forest Range and Research Experiment Station, Ogden, Utah.

(b) forming feature
5. riffle (ft.)
6. run (ft.)
7. substrate
(a) boulder (greater than 12 inches)
(b) cobble (12-2.5 inches)
(c) coarse gravel (2.4-.5 inches)
(d) fine gravel (.4-.1 inches)
(e) sand
(f) clay
8. stream bank soil alteration rating
9. stream vegetative stability rating
10. stream bank undercut and angle
11. vegetation overhang
12. embeddedness

b. Benthic Macroinvertebrates. Quantitative samples of benthic macroinvertebrates should be collected immediately upstream and downstream of each proposed location of disturbance. The collected specimens should then be counted and identified at least to genus and to species where possible. The composition of the community should be described.

c. Fish Spawning Survey. Several species of game fish spawn in the Tongue River, including sauger, walleye, channel catfish, smallmouth bass, and sturgeon. A game fish spawning potential survey should be conducted at each proposed bridge location as well as areas of proposed extensive riprapping. Sampling periods for the spawning survey would be early spring after ice breakup, after peak runoff, and in the fall. Collection methods would include electro-shock, seining, trap netting, and fry sampling.

(2) Mitigation Techniques. Once sampling has been completed and detailed data on the aquatic resource to be affected have been obtained, mitigative measures can be delineated. Some of the measures that could become necessary include:

a. Preparation of a construction schedule which provides for instream work at those times least critical to the specific fishery or aquatic resource occurring at a site, as well as the period least conducive to sediment transport. Such periods differ by stream and species affected.

b. Developing special procedures for handling of displaced materials and petroleum products to prevent introduction

of such materials into the aquatic system. The procedures referred to here would be dictated by site-specific geographic and construction criteria.

c. Running silty water through settling pond systems when dewatering for footing construction is required.

d. Assuring that backfill at crossing and rip-rap sites is washed and essentially silt-free.

e. Double-shifting at crossing sites to minimize the duration of construction activities in or near stream banks.

It should be further noted that all sampling activities have been suggested by and would be coordinated with the Montana Department of Fish, Wildlife, and Parks. It is likely that MFWP personnel will be responsible for any electrofishing aspects of the inventory.

10.0 TERRESTRIAL ECOLOGY IMPACT MITIGATION

10.1 General

Two areas of concern are addressed under the overall heading of terrestrial ecology -- wildlife and vegetation. The thrust of the terrestrial mitigation plan will be to provide additional information and options for avoiding unnecessary impacts to vegetation and wildlife. All individuals conducting further wildlife or vegetation studies will be qualified individuals, as is the policy of the ICC. If necessary, these individuals will be approved by the MFWP.

It should also be noted that the State of Montana has expressed an interest in the possibility of some form of compensation for habitat loss due to ROW construction. Through the Department of Fish, Wildlife and Parks, the State of Montana has suggested five additional areas that could be considered by the TRRC as part of final ROW negotiations with individual landowners. These are:

(1) The participation by the TRRC in the development of a "compensation" program for lost wildlife habitat along the rail line. Compensation could include the purchase by the TRRC of "cut-off" land parcels containing good wildlife habitat, and the donation of these lands to the Department of Fish, Wildlife and Parks for beneficial wildlife management.

(2) The construction of wildlife-related ponds adjacent to, or using the railroad grade as a dam. These could include "dugout" type ponds, and "bypass" ponds de signed to be filled during high flows.

(3) The providing of public access, in appropriate locations, along the rail line ROW.

(4) The granting of conservation easements by the TRRC along the rail line.

(5) Fencing that would not restrict the movement of big game animals wishing to cross the railroad ROW.

Implementation of any of these measures would have to await ROW negotiations with affected landowners. Therefore, it is not possible or desirable to suggest adoption of any of the specific measures listed at this time. It should be noted that the State of Montana's regulatory authority over easements across state lands would provide a vehicle for addressing the DFWP's concerns.

The TRRC should work with the Montana Department of Fish, Wildlife and Parks to evaluate the feasibility of these actions. Some measures, such as conservation easements, public access, etc. might conflict with adjacent landowner wishes. Implementation of these measures, therefore, would have to be reasonable, practicable, and take into account the concerns of all parties.

10.2 Wildlife

The kinds and amounts of habitats that will be lost during construction of the Tongue River Railroad were identified in the environmental documentation. Avoidance by wildlife of normal use areas adjoining the construction site is considered to be a short term impact that will be mitigated by the completion of construction; wildlife will simply reoccupy those areas where their normal use patterns have been disrupted. Mitigation of other impacts, however, requires identification of those sites where impacts may occur. Once sites are identified, numerous mitigation techniques can be developed and applied to deal with specific cases. The following methods can be used to identify those sites:

(1) An updated aerial survey should be conducted during the winter before construction begins. An aerial survey may identify new winter ranges, as well as locate any new prairie dog colonies along the route.

(2) A thorough ground reconnaissance should be conducted between April 15th and May 15th. During this period, grouse leks will be active, raptors will be nesting, and winter ranges may still be identifiable. The entire ROW should be covered, preferably by walking. In some areas it will be possible to cover the ROW by vehicle, but much of the route will be accessible only on foot.

(3) The purpose of reconnaissance will be to locate big game winter range based on evidence, such as animal remains, hair, pellet groups, etc.; locate any prairie dog colonies that were not recorded during the aerial survey; locate sage grouse and sharp-tailed grouse leks; and locate raptor nests, particularly golden eagles and prairie falcons. Evidence of threatened or endangered species, such as black-footed ferrets and peregrine falcons, would also be sought during the reconnaissance.

(4) Any specific use sites that are located during the reconnaissance should be mapped, described in field notes, and photographed. Nesting raptors should not be disturbed, but nests should be described as active or inactive.

(5) Sage and sharp-tailed grouse leks should be located by listening for displaying males at dawn. Lek locations should be mapped. If possible, a count of the displaying males should be made. If lek sites are discovered later in the day after displaying has ceased and/or birds have left the site, the site should be revisited the following morning or as soon as possible.

(6) Prairie dog colonies that are intersected by the ROW should be mapped to their approximate size on 1:24,000 USGS topographic maps. Following the field reconnaissance, the size of these colonies should be planimetered and a rough estimate of the existing population should then be made by comparison with results reported in the literature.

(7) Prairie dog colonies also should be searched for evidence of black-footed ferrets, following the methods outlined in "Handbook of Methods for Locating Black-footed Ferrets."[5] Ferret presence is most easily detected in late summer and during winter (December 1-April 15). The search along the Tongue River Railroad ROW should occur during the winter period, when evidence is most easily discerned.

Colonies affected by the right-of-way should be searched at least once and preferably three times. All colonies should be surveyed on foot, by walking transects spaced approximately 50 m apart back and forth across the colony. Any evi-

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[5]T.W. Clark, T.M. Campbell III, M.H. Schroeder, and L. Richardson, "Handbook of Methods for Locating Black-footed Ferrets," U.S. Bureau of Land Management, Wildlife Technical Bulletin No. 1 (1983), Cheyenne, Wyoming.

dence of ferrets, such as digging, tracks, scats, skulls, etc., should be photograhed and, where appropriate, collected. Scats and skulls should be identified following the keys in the "Handbook." If ferret evidence is found, the proper authorities should be notified following procedures of the Endangered Species Act.

(8) Similarly, although it is highly unlikely that nesting peregrine falcons will be found along the ROW, any occurrence of nesting activity should be properly recorded and reported.

10.2.1 Mitigative Measures

The TRRC should commit to implementing all reasonable and practical measures that result from studies conducted during third phase engineering. These may include some of the following measures:

(1) Construction Timing. The primary method of impact mitigation for wildlife is timing construction activities. All reasonable attempts should be made to avoid construction at big game wintering sites from December through March.

(2) Fawning Sites. Timing of construction may be less effective in mitigating disturbance at "fawning sites," because this term cannot be consistently applied to a given geographic location. That is, a site where deer or antelope fawns are born in one year may not be used in the following year.

Most fawns are born during the period May 15 - June 30. Late in the reconnaissance period, any single female deer or antelope that are observed should be assumed to be at or near a potential fawning site. The locations of these individuals should be mapped. On an individual basis, it may be possible for construction activities to avoid these sites during the fawning period. However, if construction cannot be delayed, the resulting impact (displacement of pregnant females to another location) should not significantly affect these species.

(3) Black-footed Ferrets. If black-footed ferrets or their evidence are found in any affected prairie dog colony, appropriate regulatory authorities should be consulted. It will probably be necessary to examine these sites on several occasions to determine whether or not ferrets are currently present in the colony. If a ferret population is present, the proper authorities should be consulted to determine the probable long term impact to ferrets if construction proceeds through the colony. Since ferrets are primarily nocturnal and may not be particularly disturbed by human presence, it

may be possible to time construction activities during the day when ferrets are least active.

(4) Raptors. It is highly unlikely that eyries of the endangered peregrine falcon or bald eagle will be encountered along the ROW. If such nests are found, the appropriate authorities should be contacted. Any active golden eagle or prairie falcon eyries located during the reconnaissance should be mapped. If the ROW passes adjacent to such eyries, construction in the affected area should be timed to avoid the critical incubation and early rearing period (April 1-June 30).

10.3 Vegetation

Vegetation concerns related to the Tongue River Railroad are primarily divided into two categories, reclamation and noxious weed control. Reclamation of devegetated areas is important for a variety of reasons, including the prevention of erosion, limitation of air pollution by fugitive dust, contribution to the stability of the railroad grade, and the importance of providing wildlife habitat. Noxious weed control is an area of great concern to local agricultural operations and should be a priority of Applicant operation and maintenance personnel.

(1) Reclamation. Reclamation or revegetation of the ROW should commence at the earliest possible time after clearing has been completed. In most cases, such revegetation cannot begin until construction is complete. But, wherever possible, it should be expedited. The following are general concerns and practices that should be employed in the process:

a. Preconstruction Planning. Successful reclamation begins with thorough preconstruction planning. Elements of such planning should contain the following:

1. Designation of sensitive areas.
2. Proposed time schedule of construction activities.
3. ROW clearing and site preparation plans.
4. Erosion and sediment control plans.
5. Waste disposal plan.
6. Restoration, reclamation, and revegetation plan.

b. Restoration/Reclamation Plan. Elements of an adequate restoration and reclamation plan include:

1. Starting reclamation immediately after construction ends, with the goal of rapidly re-establishing

ground cover on disturbed soils, with all cut and fill slopes mulched and seeded as they are completed.

2. Avoiding reclamation when soil moisture is high or ground frozen.

3. Analyzing site soil requirements and seasonal precipitation patterns to identify planting dates for optimal revegetation success.

4. Use of rapidly establishing plant species for thorough and rapid ground surface protection.

5. Providing a reclamation specialist to determine specific procedures for areas with reclamation problems such as on steep slopes or locations near waterways.

c. Revegetation Success Assurances. To ensure revegetation success, the following measures should be taken:

1. Determination of type and quantity of seed, kind of fertilizer, and other soil amendments based on soil chemical and physical properties should be made, with emphasis on native species where possible.

2. Topsoil should be segregated from subsoil and stockpiled for later application on the reclaimed ROW.

3. Only seed of registered quality and germination success should be utilized.

4. Appropriate seeding techniques should be used, such as drill seeding on level terrain and broadcast or hydroseeding on slopes to ensure distribution of seed mixture on individual microenvironments.

5. The Applicant should use mulch material, such as straw and woodchips, as a temporary erosion measure and to minimize soil temperature fluctuations and soil moisture loss. Mulch should be applied more heavily on slopes than on level terrain and nitrogen levels adjusted to reflect the increased demand during mulch decomposition.

6. The seeded area should be covered and compacted following seeding.

7. A minimum of 20 lbs./acre of pure live seed should be used throughout the route.

8. For slopes and construction areas near waterways, a variety of methods including sediment raps, berms, slope drains, toeslope ditches, diversion channels, sodding, and mulching should be used.

9. Reclamation should be monitored, and regrading eroded surfaces and revegetating areas not successfully reclaimed should be undertaken.

d. Provisions for Areas of Special Concern

1. Stream Crossings. Banks should be stabilized with naturally occurring trees, shrubs, and grass. Riprap or gabions should be used only as a supplement or where such methods would improve fish habitat, or in cases where engineering requirements so dictate.

2. Construction Sites. All litter, debris, and soils associated with petroleum spills should be removed prior to reclamation. An approved landfill may be used.

3. Slopes Greater Than 3:1. On cut and fill slopes steeper than 3:1 but less than 2:1, serrations should be made parallel to the slope to act as stable seed beds and sediment traps. Mulching and seeding should be conducted using hydroseeding/mulching equipment. Every attempt should be made to minimize foot traffic on the reclaimed slopes until vegetation is well established.

(2) Noxious Weed Control. The first step in the control of noxious weeds is reclamation of disturbed land along the railroad construction corridor before use by the railroad. This will limit bare soil required for optimal weed colonization. Following establishment of revegetation species and coincident with the beginning of rail transport, a noxious weed control program should be implemented. This program is intended to control all Montana's designated noxious weeds. It is not intended to control invader grass species.

The program should consist of a spray program using 2-4D at one pound per acre beginning June 1st and at monthly intervals until late September. This formulation should be used

on all areas of the ROW except near waterways, where Weedar 64 (a nontoxic form of 2-4D amine) should be substituted. The spray sequence has been chosen to ensure that weed plants do not reach maturity and therefore seed dispersal before being irradicated by the herbicide. All precautions normally used around herbicides should be followed and it is recommended that 2-4D amine, rather than 2-4D ester, be used because of its lower volatility. Records of application dates should be kept and referenced to ensure that program goals are fulfilled.

All activities should be conducted according to applicable regulations and guidelines, and should be coordinated with local weed control districts. In all cases, only trained, licensed, personnel should be involved in applications. Coordination with local ranchers would be an acceptable element of the overall plan, at the request of those individuals.

The Applicant should work with the local weed control districts to establish schedules for herbicide applications. In establishing the schedule, a provision should be made that, if the Applicant does not apply the measures by an agreed date, the weed control district would have the authority to implement the appropriate measures and to be reimbursed by the Applicant for those efforts.

(3) Threatened and Endangered Plant Species. As of 1984, a document prepared by the Montana Rare Plant Project and titled Vascular Plants of Limited Distribution in Montana contains listings of plants that are currently or likely to become legally protected.[6] As a result of this effort, species that might occur in southeastern Montana have been identified. During the course of other activities, biologists will be aware of potential habitats for the species listed in the document cited. If examples of any such species are encountered, appropriate actions will be determined through consultation with governmental authorities.

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[6]P. Lesica, G. Moore, K.M. Peterson, and J.H. Rumely, "Vascular Plants of Limited Distribution in Montana," Monograph No. 2, Montana Academy of Sciences, Supplement to the Proceedings 43(1984):11-12, 18, 21.

11.0 CULTURAL RESOURCES IMPACT MITIGATION

11.1 General

Construction of the Tongue River Railroad will have an effect upon cultural resources (historic, prehistoric archeological, and architectural) that may be on or eligible for nomination to the National Register of Historic Places (NRHP). After selecting and surveying an alignment, but prior to the initiation of third phase engineering, a Memorandum of Agreement (MOA) should be developed in consultation with appropriate authorities.

The (MOA) would detail: (1) the survey boundaries and methods to be followed in conducting an intensive pedestrian survey of the alignment; and (2) the steps and plans to be followed in treating cultural resources that are determined to be eligible for listing on the NRHP and that may be adversely impacted by the construction and operation of the railroad. The (MOA) should take into account, but not be restricted by, the guidelines set forth in Section 106 and 110f of the National Historic Preservation Act (16 U.S.C. 470) and its implementing regulations, "Protection of Historic and Cultural Properties" (36 C.F.R. 800).

During the preparation of the environmental documentation for the proposed railroad, a number of cultural resources were tentatively identified. A preliminary determination of eligibility was made for each site. The pedestrian survey conducted according to the terms of the SIIAP would provide the TRRC with more complete information about the presence of cultural resources in the study area. Utilizing the SIIAP, the Applicant should provide the following information regarding cultural resources:

(1) Identification. The pedestrian survey should accurately locate all historic, prehistoric, and architectural sites located within the ROW and buffer area. In addition to locating all cultural resources, Applicant should photograph each site, prepare site maps and written descriptions, and document the development of each site, based on records research and oral interviews.

(2) Evaluation. Each cultural resource site should be assessed using the criteria for evaluation (36 C.F.R. 60.6) to determine whether the site meets the eligibility requirements for listing on the NRHP.

(3) Impact Assessment. Based on the above evaluations, the Applicant, in consultation with appropriate authorities, should determine whether eligible cultural resource sites will be impacted, directly or indirectly, by construction and/or operation of the railroad.

(4) Mitigation. The SIIAP should contain a detailed procedure that should be followed if an eligible cultural resource site will be adversely impacted by the construction and/or operation of the railroad. The mitigation measures should include but not be limited to those set forth in the ACHP's "Manual of Mitigation Measures (MOMM)."[7]

The Applicant should prepare a cultural resource technical report that will detail the results of the field survey. The report should contain information on all sites identified, an evaluation of each site, and a recommendation for further work on all eligible sites that may be impacted during construction and/or operation of the railroad. The report also should contain recommendations for mitigating impacts to each site.

12.0 SUMMARY

The successful mitigation of impacts associated with the Tongue River Railroad will require cooperation and coordination among a wide variety of individuals, state and federal agencies, and local governments. A complex body of regulations applies to most aspects of construction and operation of such a project. In order to comply with the regulatory requirements imposed upon the Applicant, it may become necessary to adjust non-regulated aspects of the suggested mitigation procedures. It is safe to assume that certain conflicting mitigation concerns will occur. In such cases, it is important that lines of communication be maintained between all parties.

A number of tasks remain to be accomplished in terms of development of the Final Mitigation Plan. Most of these tasks are presently constrained by the permitting process itself, but will be accomplished once a decision to proceed is made. These tasks include, but are not limited to:

(1) Individual ROW negotiations with landowners, to include site-specific mitigation provisions.

(2) Easement negotiations with the U.S. Department of Agriculture for the ROW through LARRS, to include detailed mitigation stipulations.

(3) Easement negotiations with the Montana Department of State Lands, the Montana Department of Fish, Wildlife, and Parks,

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[7]Department of the Interior, National Park Service, Advisory Council on Historic Preservation, "Manual of Mitigation Measures (MOMM)," October 12, 1982.

and the U.S. Bureau of Land Management for ROW across lands under the control of those agencies. It is assumed that numerous site-specific mitigation stipulations will be included in resulting agreements.

(4) Development of a detailed construction traffic control plan.

(5) Development of construction mitigation stipulations to be required of all contractors providing services to the Applicant.

(6) Conduct field studies of impacted aquatic habitat.

(7) Conduct field wildlife surveys.

(8) Develop site-specific revegetation and weed control plans.

(9) Develop cultural resources management plans.

Where the specific requirements of these various planning instruments come into conflict, certain priorities must be established to resolve differences. In all cases, regulatory requirements should take precedence over matters of convenience, either to the Applicant or to other parties. In cases where the public health or welfare is at issue, such concerns should take precedence over matters of economic, spatial, or temporal convenience.

Appendix C

State Historic Preservation Office

MEMORANDUM OF AGREEMENT

Advisory Council On Historic Preservation

The Old Post Office Building
1100 Pennsylvania Avenue, NW, #809
Washington, DC 20004

File - COMP
ICC

DEC 8 1986

Mr. William R. Southard
Director
Office of Transportation Analysis
Interstate Commerce Commission
Washington, DC 20423

REF: Memorandum of Agreement regarding proposed issuance of permission for the construction of the Tongue River Railroad, Montana.

Dear Mr. Southard:

The enclosed Memorandum of Agreement has been accepted by the Chairman of the Council. This document constitutes the comments of the Council required by Section 106 of the National Historic Preservation Act and the Council's regulations. A copy of this letter and the Agreement has also been sent to the Montana State Historic Preservation Officer.

The Council appreciates your cooperation in reaching a satisfactory resolution of this matter.

Sincerely,

Thomas F. King
Director, Office of Cultural
Resource Preservation

MEMORANDUM OF AGREEMENT BETWEEN
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
THE MONTANA STATE HISTORIC PRESERVATION OFFICER,
AND THE INTERSTATE COMMERCE COMMISSION
REGARDING THE CONSTRUCTION OF THE TONGUE RIVER RAILROAD

WHEREAS, the Interstate Commerce Commission (ICC) has determined that the construction of the 89 mile long Tongue River Railroad from Miles City, Montana, to terminal points in Rosebud County, Montana, will have an effect upon historic properties (archeological, architectural, historic, and cultural properties) included in or eligible for inclusion in the National Register of Historic Places;

WHEREAS, ICC has requested the comments of the Advisory Council on Historic Preservation (Council) and the Montana State Historic Preservation Officer (MSHPO) pursuant to Section 106 of the National Historic Preservation Act (16 U.S.C. 470) and its implementing regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800); and

WHEREAS, ICC in its decision to approve the above construction has reserved jurisdiction to reopen this proceeding in the event that Commission enforcement of the mitigation measures is shown to be required.

NOW, THEREFORE, the ICC, the MSHPO, and the Council agree that the above cited construction shall be implemented in accordance with the following stipulations in order to take into account its effect on historic properties.

STIPULATIONS

ICC shall require TRCC to implement the following measures:

1. Survey, Identification, and Evaluation of Historic Properties

The staked right-of-way will be surveyed completely to identify historic properties eligible for or listed in the National Register of Historic Places. In addition, a corridor one mile from the center line of the right-of-way (established to consider visual, noise, and other indirect impacts and adjusted to topographic conditions in consultation with the MSHPO) will be surveyed to identify and evaluate all historic structural remains. Staging areas and work camps will be surveyed to identify any historic properties eligible for or listed in the National Register. TRRC will provide the MSHPO survey reports, as-well-as site forms, locational information, and photographic documentation for all historic properties identified through

the surveys performed including an assessment of each identified property's significance. TRRC will then consult with the MSHPO to determine whether each identified property is listed in or eligible for inclusion in the National Register (historic properties). Where the MSHPO and TRRC agree a property is eligible, the property shall be deemed eligible for the purposes of this Agreement where agreement cannot be reached or there is doubt, stipulation 7 of this Agreement shall be implemented.

2. Historic Properties Management Plan

TRRC shall develop a Historic Properties Management Plan (Management Plan) which shall include: (a) a list identifying the historic properties and their significant features, (b) an assessment, arrived at in consultation with the MSHPO, of the effect of the project on historic properties, and, (c) a treatment plan, as specified in stipulation 3 of this Agreement, containing proposed treatments for those historic properties that will be adversely affected by the project.

3. Treatment Plan

The Management Plan and Treatment Plan shall be subject to ICC approval and shall provide for at least the following:

A. In-Place Preservation

Whenever possible, in-place preservation shall be the preferred alternative. In consultation with ICC, MSHPO, and other appropriate local agencies, TRRC shall develop specific procedures to preserve historic properties in-place. These procedures may include monitoring of historic properties by historians and archeologists during construction.

B. Data Recovery

i. In consultation with ICC and MSHPO, TRRC shall develop specific procedures for treating historic properties (archeological). These procedures shall take into account the principles and standards contained in the Council's Treatment of Archeological Properties: A Handbook. The Treatment Plan will specify: which archeological sites or portions of sites shall be subject to data recovery; which sites may be destroyed without data recovery (including justification of this decision); and the research design developed for sites, groups of sites, or all archeological sites affected by the undertaking.

ii. Standing historic structures which cannot be avoided shall be recorded to the level of documentation prescribed by the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) of the National Park Service. Such recordation may include a site history, photographs, measured drawings, etc. Copies of this documentation must be accepted by HABS/HAER prior to any alteration of the historic structure. Copies of the accepted documentation will be provided to MSHPO.

4. Review of the Management Plan

TRRC shall submit the Management Plan to the MSHPO, Council, and other appropriate agencies. The letter of transmittal shall inform the MSHPO and Council that in accordance with the terms of this Agreement they have 15-days to review and object to the Management Plan. The letter of transmittal will inform other appropriate agencies that they have 15-days during which to comment on the Managment Plan and that the Council and MSHPO have 15-days during which to review and object to the Management Plan. If no objections are filed within this 15-day period, the Management Plan shall be deemed acceptable by the ICC and shall be implemented by TRRC.

5. Filing of Objections

Objections in accordance with this Agreement shall be filed with ICC's Office of Transportation Analysis (or its successor as specified in cover letters of ICC) within the aforementioned 15-day review period. Objections shall state and explain the specific grounds for objection (eligibility, effect, treatment, etc.) and shall include appropriate recommendations.

6. Resolution of Objections

If objections are resolved to the satisfaction of ICC, MSHPO, Council, and TRRC, then TRRC shall implement the agreed upon Management Plan. If objections cannot be resolved, then the procedures set forth in stipulations 7 and/or 8 of this Agreement shall apply.

7. Disagreement on Eligibility

A. If the MSHPO and TRRC disagree on site eligibility, the ICC shall seek a determination of eligibility from the Keeper of the National Register (36 CFR Part 63).

B. The procedures described elsewhere in this Agreement regarding historic properties shall apply if the

Keeper of the National Register determines that the site in question is eligible.

8. Disagreement on Effect and/or Treatments

A. If the MSHPO, TRRC, or appropriate agencies disagree on the appropriateness or completeness of the survey, the project's effects on historic properties, or on the proposed treatments, ICC will forward all available documentation and correspondence to the Council for a recommendation. The letter of transmittal will inform the Council that its Executive Director shall transmit recommendations within 15-days from receipt of the documentation.

B. The treatments recommended by the Executive Director shall apply. If TRRC is unable to implement the Council's recommendations for treatment, then TRRC shall notify ICC and include the specific reasons why it cannot comply. ICC will then notify the Council's Executive Director of the problem and will obtain the Council's further comments in accordance with 36 CFR Part 800).

9. Properties Identified During Construction

Any historic property identified during construction in previously surveyed areas, shall be handled in accordance with 36 CFR §800.7.

10. Access by Construction Personnel

All historic properties will be declared off limits to construction personnel and railroad employees during and after construction of the railroad.

11. Terms of the Agreement Cannot be Met

If any of the signatories to this Agreement determines that the terms of the Agreement cannot be met or believes a change is necessary, that signatory will immediately request the consulting parties to consider an amendment or addendum which will be executed in the same manner as the original Agreement.

12. Failure to Carry out the Terms of This Agreement

Failure to carry out the terms of this Agreement requires that ICC again request the Council's comments in accordance with 36 CFR Part 800. If this occurs ICC will not take or sanction any action or make an irreversible commitment that would result in an adverse effect with respect to the historic properties covered by the Agreement or would

foreclose the Council's consideration of modifications or alternative that could avoid or mitigate the adverse effect on the property until the commenting process has been completed.

13. Suspension of the Agreement

Any party to this Agreement may suspend it by written notice to the other consulting parties. If this happens the parties will consult further to determine whether the issues can be resolved and the Agreement amended in accordance with Stipulation 11.

Execution of this Agreement evidences that ICC has afforded the Council a reasonable opportunity to comment on this Tongue River Railroad Company project and its effects on historic properties and that the ICC has taken into account the effects of the undertaking on historic properties.

Sept. 22, 1986
Interstate Commerce Commission (date)

Oct 7, 1986
Montana State (date)
Historic Preservation Officer

12/1/86
Acting Executive Director (date)
Advisory Council on Historic Preservation

3 Dec. '86
Chairman (date)
Advisory Council on Historic Preservation

Oct 12, 1986
Tongue River Railroad Company (date)

Appendix D

Montana Department of Fish Wildlife and Parks

REVERSION/MITIGATION CORRESPONDENCE

Montana Department of Fish, Wildlife & Parks

Helena, MT 59620
January 16, 1989

Mr. Roy Henderson
Department of State Lands
Helena, MT 59620

Dear Mr. Henderson:

The attached letter from Mr. Thomas Ebzery, representing the Tongue River Railroad, provides us with sufficient information to begin preparation of the Environmental Analysis for their easement request across our Miles City fish hatchery property.

Bob Martinka will remain as our contact for this process. Please contact him directly with details of the process.

Thank you.

Sincerely,

Ron Marcoux
Interim Director

RM/sa

Enc

cc: Bob Martinka

COPY

Thomas E. Ebzery, P.C.
Attorney at Law
Village Center I
1500 Poly Drive
Billings, Montana 59102

Telephone
245-4881
Area Code 408

Admitted to Practice
Montana
Wyoming
District of Columbia

RECEIVED
JAN 3 1989
LEGAL UNIT
FISH WILDLIFE & PARKS

December 30, 1988

Ms. Eileen Shore, Counsel
Montana Department of
Fish, Wildlife & Parks
1420 East 6th Avenue
Helena, MT 59601

Dear Ms. Shore:

On September 29, 1988, I received a letter from Director Flynn regarding results of a preliminary evaluation of possible impacts from the Tongue River Railroad (TRRC) easement application filed with the Department of Fish, Wildlife & Parks (MFWP) last summer.

Mr. Flynn's letter raises concern about physical impacts to the hatchery, and the revision clause contained in the patent to MFWP from the U.S. Government.

This letter and accompanying legal memorandum is intended to respond to those concerns. However, I have not sought direct approval from the U.S. Fish & Wildlife Service for several reasons, the first and foremost being legal.

As the memorandum states clearly, there is a possibility of reverter here at best in the U.S. "upon a finding, after notice and opportunity for a hearing, that the lands have been devoted to a use other than that for which the lands are conveyed." The legal memorandum fully discusses the meaning of "devoted to" and how that and what we are requesting has been interpreted by case law. I'm sure you will concur with our conclusions that the use the TRRC plans for less than ten acres of 168.04 acres will not change the nature of the patent. I hope after review and analysis of the accompanying legal memorandum that you agree with my legal conclusion that the language presents no obstacle to the granting of a temporary easement for 200' or less.

Second, the Fish & Wildlife Service may have utilized the lands prior to transfer, but the patent itself was issued by the Bureau of Land Management. There is nothing in the instrument itself acknowledging any legal involvement with the U.S. Fish & Wildlife Service. It this is incorrect, please advise.

In response to Director Flynn's letter regarding unknown impacts from vibration that the proposed TRR might have on the hatchery, I can state the following: Since our August meeting,

I have visited with our engineering firm, and they strongly believe that the placement of a berm between the right of way boundary and the newly constructed ponds will prevent the vibrations FWP was concerned about. We will prepare a design of this berm, its dimensions, materials, and illustrate how it works for your review. Should you so desire, I am prepared to commit the TRRC to such a berm.

In further response to Mr. Flynn's concern that "the proposed easement provides us with little or no assurance that TRRC recognizes or would accept any responsibility for physical or operational impacts to the hatchery" I am prepared to commit the TRRC to the following:

1. Creation of a scientific advisory panel composed of three recognized experts in the fisheries field to monitor construction and operational activities of the TRRC. MFWP would select one member, TRRC one member and the third member would be selected by the panelists themselves.

2. In addition to monitoring, the panel would also review complaints and concerns by the parties. Said panel would be authorized to prescribe mitigation including compensatory damages. The TRRC would be bound by their decisions regarding compensation and mitigation.

3. The TRRC further agrees to obtain a corporate surety bond payable to FWP for an agreed upon amount to cover any damages covered by its operations, including decisions of the fisheries panel.

4. TRRC agrees to cooperate with your agency on these and yet unknown issues and concerns which may be raised in the future. It is in our best interest as well as yours to work together.

With the above commitments and legal memorandum, we believe we have made a good faith effort to alleviate concerns expressed by your agency. We in turn would request that MFWP allow the PER process to move forward, armed as you are with these assurances.

Should a further meeting be warranted, please contact me.

Very truly yours,

Thomas E. Ebzery

TEE/lms
Enc.
cc: Director, MFWP
Alan Newell

LEGAL MEMORANDUM

TO: Eileen Shore

FROM: Tom Ebzery

DATE: December 30, 1988

RE: TRRC EASEMENT REQUEST & AUTHORITY REGARDING LANGUAGE ON PAGE 2 OF THE PATENT

INTRODUCTION

The transfer document from the U.S. to the Montana Department of Fish, Wildlife & Parks has been reviewed, whereby title is transferred to your agency of 168.04 acres of land for use as a hatchery. The reversion clause has been examined as well as its legal implications. TRRC has also discussed the language with officials of various federal agencies to determine precedent for interpretation.

It is my legal conclusion, for the reasons and authority cited below, that the Department may issue easements, licenses and other non-perpetual encumbrances on the lands in question, so long as these uses of the land do not change the paramount and predominant use of the 168.04 acre site. The use of the land for fish hatchery purposes must remain paramount and the encumbrance cannot unreasonably interfere with this primary use.

The TRRC is requesting a maximum 200' right of way bordering on the extreme east border of the lands in question. The total affected acreage would be less than 12 acres (11.03) of the

168.04 acre site. This figure may be reduced as much as one third after the completion of final engineering.

ANALYSIS

The grant and reversion language contained on page 2 of the document is common throughout the federal government in transfers to state and local agencies. At the same time, this language is not intended to preclude temporary encumbrances of a portion of the land for ordinary and expected uses. These uses include, but are not limited to, transmission lines, pipelines, telephone lines and railroads. Use of a small portion of this land for such a use should in no way change or alter the principal use of the lands conveyed, which is the fishery resources management program.

The language in question itself is somewhat telling as to intent of the parties and what type of encumbrance would be subject to reversion.

> 2. Title to the lands conveyed shall revert to the United States upon finding, after notice and opportunity for a hearing, that the lands have been devoted (emphasis mine) to a use other than that for which the lands are conveyed.

The word "devoted" in the patent is most important in determining intent. Checking "Words and Phrases" under devote, the commonly accepted meaning of the word devoted is to "give up wholly." "Devoted to" has been interpreted as meaning giving up chiefly. The term was used in the case of City of East Orange v. Township

of Livingston, 246 A.2d 178, 191 (NY 1968) to mean "committed, or dedicated, or set apart, or appropriated, or given up wholly or chiefly..."

Applying these definitions to the facts of the matter before us, it would be most difficult to believe that a Court (or the Bureau of Land Management for that matter) after notice and hearing would determine that a temporary encumbrance of less than 7% of the grant would be devoted to a use other than fishery purposes. If, however, you have read other cases showing the contrary, I would be most interested in reviewing them.

What has been Conveyed?

A review of the deed itself indicates that the United States conveyed a patent to the Department of Fish, Wildlife & Parks in Montana. The U.S. has, at best, a contingent reversionary interest with a possibility of reverter or a fee simple determinable. Technically, the fee simple determinable is not a legally smaller estate than a fee simple absolute. The U.S., as a creator of a fee simple determinable, cannot be said to have a reversion, even though his retained interest is of a reversionary nature.[1]

It is also possible that this is a fee simple on condition subsequent. The future interest arising in the grantor of a fee

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[1] Moynihan, Introduction to Law of Real Property, Chapter 5, Sec. 3, p. 96. (1962).

simple on condition subsequent is a right of entry for condition broken. A right of entry for condition broken is a power to terminate the granted estate for break of the condition and until that power is properly exercised, the grantee's estate continues despite the breach.[2]

The language in paragraph 2, page 2, of the conveyance requires a specific action upon breach, that of notice and opportunity for hearing, as well as a finding in order to receive a reversion. Thus, it is fairly safe to assume that we have at best a fee simple on condition subsequent or a right of entry for condition broken.

Even putting the facts in the most unfavorable light for FWP and TRRC, if the easement were determined by the U.S. to violate the the agreement and the easement is interpreted to be devoting lands to a use other than that for which the lands are conveyed, the U.S. would have to conduct a hearing and make findings prior to retaking the lands. Such a situation, even as unlikely as it seems, would probably not result in a decision to retake Tract Y. I have reviewed a number of reported decision on fee simple determinable and fee simple with a condition subsequent, and regardless of jurisdiction, both state and federal cases are clear that because conditions subsequent may result in forfeiture, they are disfavored at law and are normally

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[2] Id at 98.

interpreted as covenants. MacDonald Properties, Inc. v. Bel-Air Country Club, 140 Cal. Rptr. 367 (Cal. App. 1977).

Assuming arguendo that "devoted" to did not mean what it does, and issuing an easement to TRRC was a deviation or even a breach of the patent, how have courts treated such a deviation or breach?

In instances where a deviation or breach from the terms of the instruments, Courts have been reluctant to harshly apply the reversionary clause. The law does not favor forfeitures, and thus deed will be construed to avoid forfeiture, if possible, and forfeiture provisions will be construed most strongly against grantor. Witchita Falls Grain Co. v. Taylor Foundry Co., 649 S.W. 2d 798 (Tex. App. 2 Dist. 1983).

In the Oregon case of Northwest Natural Gas v. City of Portland, 680 P.2d 1099, 70 Or. App. (Or. App. 1984), the Court held that construction of a street railway on property conveyed by utility to county for use as a "public highway" did not create an additional servitude violating the deed.

The New Jersey Court in Johnson v. City of Hackensack, 491 A.2d 14, 200 N.J. Super. 181 (N.J. Super. A.D. 1985) held when forfeiture would result from failure to use property for purposes specified in the deed a minor deviation from that use will not effect forfeiture as long as the specified use is substantially carried out.

The case of Wauconda Community Unit School District No. 18, Lake

County v. LaSalle National Bank, 97 Ill. Dec. 336, 492 N.E. 2d 995, 143 Ill. App. 3d 52 (1966) resulted in the courts construing "for public purposes" in a reversion provision of the deed as not requiring the holding of classes, and some alternative uses were permissible, which were within realm of "school purposes."

The reversionary clause was interpreted by the court in a Kansas case, Kinney v. State, 710 P.2d 1290 (1985). The clause in the deed required the State of Kansas to use and maintain donated land as a "public forestry, fish & game presence, and recreational state park." The court held that the State was only required in good faith to use and maintain the land for the stated purposes, even though included in the reversionary was a requirement that a lake be constructed on the premises. There was no forfeiture of title, because the court felt the State acted in good faith.

Railroad Cases

I have reviewed a number of railroad cases that had reversionary language in grants from the U.S. and others. It is a general rule that a railroad company may, by leave or license, permit third persons to use a portion of its right of way or other lands for purposes which are not inconsistent or which do not interfere (emphasis added) with its use for railroad purposes. Kansas City Southern Ry. Co. v. Marietta Oil Corporation 22 F. Supp. 279.

A second case of Mississippi Investments v. New Orleans & N.E.R. Co., CA Miss., 188 F.2d 245(1951) held that language in a deed conveying to the railroad "for the sole and only purposes of depot, sidings and other railroad purposes" was interpreted as allowing the lease to a third party (Hardware) for a warehouse.

The court in Marthens v. B&O Railroad Co., 289 S.E.2d 706, (WVA) said that the validity of allowing a railroad to execute short terms leaves of its right of way to third parties is virtually unquestioned. It said that economic factors, changes in operational methods and the ebb and flow of business often make it impossible to use an entire tract of land for railroad purposes on a continuous basis. The court held that all land not in actual use to revert was unrealistic.

Lawson v. Georgia S&F Rail Co., 142 Ga. 14, 82 S.E. 233, 235 (1914) held the following: "(i)n order to effect a reverter of the whole estate, where part of the land is used for the purpose specified in the grant and part of the land is used for another purpose, there must be a total destruction of the whole estate of the grantee."

CONCLUSION

Language containing the possibility of reverter is common in deeds for public purpose uses. Courts abhor forfeitures and possible reversions will be strictly construed. The use of the words "devoted to" have been interpreted by the courts to mean "give up chiefly, or wholly." The TRRC is requesting an easement

for less than 12 acres in Tract Y out of 168 acres in the tract. Any easement to TRRC would be not perpetual, and obviously will contain language terminating same if it is not used for railroad purposes. Authority exists for interpretation of the reversion clause and many parallel situations in the case law exist which deviated from the language in the deed, and such alternative uses have been upheld and within the meaning of the language. The language requiring notice and public hearing prior to a reversion is unmistakable evidence that the U.S. intended to be flexible.

Finally, a number of right of way specialists in federal agencies are of the opinion that non perpetual easements for transmission lines, power lines and railroads are normal and in the course of commerce. It is highly unlikely therefore that issuance of an easement to TRRC would place the Department of Fish Wildlife and Parks at any risk whatsoever.

Sandy Olsen
DSL

United States Department of the Interior

TAKE PRIDE IN AMERICA

BUREAU OF LAND MANAGEMENT
MONTANA STATE OFFICE
222 NORTH 32ND STREET
P.O. BOX 36800
BILLINGS, MONTANA 59107-6800

IN REPLY TO:
MTM 40642A
(932.2)

April 4, 1989

Mr. Ron Marcoux
Montana Department of Fish, Wildlife & Parks
1420 East Sixth Avenue
Helena, Montana 59620

RECEIVED
APR 05 1989

Dear Mr. Marcoux:

Thank you for your letter of March 3, 1989, regarding the title to the property obtained from the United States for the Miles City Fish Hatchery. More specifically, you were interested in the possibility of triggering the reversionary provision of the patent if the state were to grant a right-of-way to the Tongue River Railroad Company across the tract.

We do not feel that issuance of a right-of-way grant will trigger the reversionary provisions of the patent. Our Field Solicitor's opinion is that the reversionary clause could only be invoked by an action of the United States, and such action would require a hearing before an Administrative Law Judge. It is also his opinion that it would be necessary for such a hearing to disclose that the dominant use of the property is inconsistent with the conditions of the patent before the reverter would be effective.

If you have any further questions, please contact Larry Koch at 255-2942.

Sincerely,

John A. Kwiatkowski
Deputy State Director, Division of
Lands and Renewable Resources

cc:
DM, Miles City

United States Department of the Interior
FISH AND WILDLIFE SERVICE

MAILING ADDRESS:
Post Office Box 25486
Denver Federal Center
Denver, Colorado 80225

STREET LOCATION:
134 Union Blvd.
Lakewood, Colorado 80228

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
FA/MT
15
MAILSTOP 60152

FEB 22 1989

RECD
FEB 27 1989

James Flynn, Director
Montana Department of Fish,
Wildlife and Parks
1420 East 6th Avenue
Helena, Montana 59620

Dear Jim:

In response to the request for an easement of the Tongue River Railroad to pass through the Miles City Fish Hatchery site, we recommend that you contact the Montana State office of the Bureau of Land Management about this proposal since the patent for the land was issued to your Department by the Bureau.

The new facilities developed with Federal Aid funds must continue to serve the intended purposes of the project. Otherwise, a loss of control would constitute a diversion of Federal Aid funds. Since the Environmental Impact Statement that was prepared earlier did not cover the new facilities, the impact of the proposed Tongue River Railroad would have to be covered in a supplement.

We have serious concerns about the potential adverse impacts that vibrations from the railroad cars could cause to the facilities and structures on the Hatchery grounds. Severe damage to facilities occurred on the Hotchkiss National Fish Hatchery in Colorado from vibrations caused by trains hauling coal adjacent to the hatchery. Similar structural damages can result from the proposed railroad right-of-way at the Miles City Fish Hatchery. Even if the railroad easement does not cross the hatchery property, it will cross the newly installed water supply pipeline from the Yellowstone River. In addition, data are available that demonstrate that various factors, such as severe vibrations, can stress fish easily. Such stress could affect reproduction of the broodstock and growth of the juvenile fish.

Please contact us if we can be of further assistance on this matter.

Sincerely,

Jerry J. Blackard

Jerry J. Blackard
Deputy Assistant Regional Director
For Federal Aid
Fisheries and Federal Aid

cc: Bobbi Balaz

Appendix E

Montana Department of Highways

AGREEMENT

DEPARTMENT OF HIGHWAYS

TED SCHWINDEN GOVERNOR

2701 PROSPECT

STATE OF MONTANA

HELENA MONTANA 59620

December 23, 1988

Commissioner Dennis Hemmer
Department of State Lands
1625 Eleventh Avenue
Helena, MT 59620

TONGUE RIVER RAILROAD AGREEMENT

The Department of Highways has reached a final agreement with the Tongue River Railroad regarding the issuance of encroachment permits for the proposed railroad crossings. At Attorney Thomas Ebzery's request I am enclosing a copy of the agreement for your information.

Please contact me or Don Cromer if you have any questions.

Beate Galda

BEATE GALDA, ATTORNEY
LEGAL DIVISION

BG:ml

Enclosure

cc: Roy Henderson
Thomas E. Ebzery, Esq.
Don Cromer

AGREEMENT

This agreement is between the Tongue River Railroad Company (TRRC) and the Montana Department of Highways (MDOH). Both parties agree to the matters which are contained in this document.

The TRRC is planning to construct a rail line from Miles City southward and has received approval to construct the line from the Interstate Commerce Commission. The proposed alignment will involve four encroachments on Interstate and Primary facilities maintained by the Montana Department of Highways, and three encroachments on Secondary facilities maintained by either Powder River or Rosebud County. The TRRC has filed preliminary applications with the MDOH for these encroachments.

The Montana Department of State Lands has been designated the lead agency for the preparation of a Preliminary Environmental Review (PER) Document, which will assess the possible impacts from issuance of permits from various state agencies including, but not limited to MDOH, for the proposed Tongue River Railroad. The PER, when finalized, will supplement the Draft and Final Environmental Impact Statements prepared by the Interstate Commerce Commission for this proposed project.

Relative to MDOH concerns regarding permits to cross state Interstate and Primary highways and county Secondary roadway facilities and related environmental issues addressed in the PER the following is agreed upon.

1. Confirming the discussions held at a meeting on August 26, 1988, with MDOH and TRRC personnel, it is agreed that the preliminary encroachment applications which have been submitted to date have been submitted for informational purposes only. It is also agreed that the preliminary encroachment applications, together with this signed agreement, are sufficient to meet MDOH concerns relative to the completion of the PER.

2. At the August 26, 1988 meeting, TRRC personnel stated that the highway milepost locations for railroad crossings in final encroachment applications would not vary by more than 10 feet from milepost locations identified in preliminary encroachment applications. As mileposting in preliminary applications is given in hundredths of a mile (52.8'), which is already greater than the amount of milepost variance identified by TRRC personnel, it is understood that the milepost locations in final encroachment applications will not vary from those given in preliminary encroachment applications. It is understood by TRRC that if milepost locations in final encroachment applications vary from those given in preliminary applications, the areas of MDOH concern in the PER may have to be readdressed. In other words, altering milepost locations in final encroachment applications could necessitate a new PER.

3. It is agreed that MDOH approval of encroachment applications for those roadways under MDOH jurisdiction will be based on final engineering drawings to be submitted for review to the MDOH by TRRC. Final approval of encroachment applications by MDOH is a prerequisite to beginning construction on any of the highway crossings.

4. It is agreed that approval of encroachment permits for those Secondary roadways being maintained by the counties will not occur until final engineering drawings and corresponding encroachment permits from TRRC are submitted to and approved by the respective counties. Permits to cross Secondary roadways shall be finalized and approved by the respective counties before TRRC initiates construction on any of the Secondary roadway crossings.

   Although the MDOH does not exercise authority to approve or reject encroachment applications on any portion of these Secondary routes, Federal Aid and state money has been invested into the development of these routes, and the MDOH is charged with protecting this investment. Consequently, the TRRC will submit to the MDOH all final engineering drawings for crossings of Secondary roadways being maintained by the individual counties, and after review the MDOH will submit the drawings and comments to the relevant county.

5. The TRRC must submit for MDOH approval a traffic detour and signing plan that is sufficient to protect the traveling public and maintain traffic flow through the proposed construction sites before any encroachment application will be approved.

6. It is agreed that the TRRC will comply with the following design criteria on final TRRC designs submitted for separation structures and associated highway approaches where the rail line crosses all MDOH and county Secondary facilities. These criteria are set out below:

   I. ROADWAY DESIGN: The TRRC will conform to design criteria specified in the "Montana Department of Highways Road Design Manual," and will follow design and construction criteria specified in "Montana Standard Specifications for Road and Bridge Construction," 1987 and all supplemental specifications to it, and the AASHTO manual A Policy on Geometric Design of Highways and Streets, 1984.

   a. DESIGN SPEED: For the crossing of I-94, a design speed of at least 70 m.p.h. will be used. For all crossings of Primary System routes, a design speed of at least 60 m.p.h. will be used. For all crossings of Secondary System routes, a design speed of at least 50 m.p.h. will be used.

   b. HORIZONTAL AND VERTICAL ALIGNMENT: The TRRC will follow "desirable" standards for horizontal and vertical design criteria as they relate to the appropriate design speed as specified in the "Montana Department of Highways Road Design Manual."

   c. CUT AND FILL SLOPE RATIOS: Cut and fill slope ratios will be designed to be in conformance with the "Montana Department of Highways Road Design Manual."

   d. The TRRC will submit all design calculations, design plans and contract special provisions for structures crossing over the railroad to the MDOH for approval and retention.

II. STRUCTURE DESIGN: Where roadways cross over the railroad, separation structures will be designed by TRRC to MDOH standards and specifications. The TRRC will follow design and construction criteria specified in "Montana Standard Specifications for Road and Bridge Construction," 1987 and all supplemental specifications to it, and the AASHTO Standard Specifications for Highway Bridges, 1983 and all amendments.

a. STANDARD BRIDGE CLEARANCES: Where the railroad crosses over the highway, the separation structures will be designed to TRRC standards and will provide minimum horizontal and vertical highway clearances as specified on standard sheet #1202, (page 12-3) of the "Montana Department of Highways Road Design Manual."

b. The TRRC will submit all fabrication drawings, design calculations, design plans and special provisions for structures crossing over the railroad to the MDOH for approval and retention.

7. It is agreed that the construction of this project is for the sole benefit of the TRRC and that no benefit will be derived by the MDOH. Because of this, the parties agree that the MDOH and the involved counties will bear none of the costs incurred in the development, construction or operation of this project.

8. For separation structures carrying MDOH roadways over TRRC rail lines the MDOH will let the contracts for the construction of these structures and associated approach work and administer these contracts in accordance with normal MDOH procedures. All costs incurred in accomplishing this end will be solely the responsibility of the TRRC. MDOH agrees to use its best efforts to administer such contracts in a professional, cost efficient and timely manner.

9. The contracts for TRRC separation structures that carry Secondary roadways over TRRC rail lines will be let and administered by the MDOH in accordance with normal MDOH procedures. All costs incurred in accomplishing this end will be solely the responsibility of the TRRC. MDOH agrees to use its best efforts to administer such contracts in a professional, cost efficient and timely manner.

10. The TRRC will provide to the MDOH for review an estimate of construction costs for each separation structure to be let, 90 days prior to the projected contract letting date.

11. TRRC agrees to pay to MDOH the costs of the above-referenced contracts within 30 days of receipt of each claim submitted by MDOH. In addition, prior to the signing of each of the contracts, TRRC shall furnish a corporate surety bond for the benefit of the project in the name of MDOH and in the amount of the contract plus estimated charges for contract administration, construction engineering and contingencies. If the Department approves any change order which is necessary for the construction of the project and which results in an increase in the contract amount or if other necessary costs are incurred relevant to the project, the TRRC shall also pay such claims within 30 days of receiving notice.

If any of the above payments are not paid within 30 days, except in the case of a legitimate dispute, the bond will be forfeited and the proceeds made payable to MDOH.

12. Because the construction contracts will be public works contracts, they shall be subject to the requirements of Chapters 1 and 2, Title 18, MCA, specifically, bidder preference, bid security, performance bonds, and the Little Davis Bacon Act. In case of a contractor claim, TRRC shall be responsible for all costs of defense and for any final award or settlement unless the reason for the claim was the result of negligence by the MDOH.

13. For TRRC structures over MDOH facilities, the TRRC will notify the MDOH at least 60 days prior to any construction within highway right-of-way of the anticipated construction dates. The MDOH may have inspector(s) present during the construction of any facilities within highway right-of-way.

14. The separation structures carrying Interstate and Primary highways over TRRC rail lines shall upon completion become the property of the MDOH and the TRRC will submit original drawings of these structures to the MDOH for permanent retention.

15. The separation structures carrying Interstate and Primary highways over TRRC rail lines will be maintained by the MDOH. The cost to repair damage to MDOH facilities which is the direct result of TRRC operations shall be paid by the TRRC. The necessary repairs and means to accomplish such repairs will be determined by the MDOH. Repair of damages to highway facilities which are the result of highway operations will be the responsibility of the MDOH.

16. In the event that it is determined through normal bridge inspection and sufficiency considerations that structures carrying MDOH facilities over TRRC rail lines require rehabilitation or replacement, the cost of this construction shall be paid by TRRC and replaced or rehabilitated facilities shall conform to highway design standards and specifications in effect at the time of construction. Work to rehabilitate or replace facilities will be administered by the MDOH.

17. The ownership of separation structures that carry TRRC facilities over MDOH roadways will be retained by TRRC with the total responsibility for these structures borne solely by the TRRC.

18. Permission must be acquired by TRRC before entering MDOH right-of-way to perform maintenance on separation structures owned by the TRRC. It is recommended that TRRC ask for permission 30 days prior to the intended work to assure adequate time for MDOH to consider and respond to the request. Emergency maintenance requests will be responded to promptly by the MDOH.

19. In the event of abandonment of railroad facilities or cessation of railroad operations, the MDOH will decide whether crossing facilities involving MDOH right-of-way will remain in place or if they will be removed. If the MDOH determines that these facilities must be removed,

then highway facilities shall be reconstructed to the grade and alignment that existed prior to construction of the TRRC crossing. Reconstructed facilities shall conform to highway design standards and specifications in effect at the time of reconstruction. The cost of removal of crossing facilities and reconstruction of MDOH facilities shall be paid by TRRC. Such structures will then become the property of the TRRC. Work to restore MDOH facilities will be administered by MDOH.

20. This agreement will take effect immediately upon execution by an authorized representative agent or general partner of the Tongue River Railroad Company and the Director of the Montana Department of Highways.

21. This agreement may not be changed or amended except in writing in a document signed by both parties.

22. This agreement will be null and void if the TRRC has not initiated construction on any of the crossings within five (5) years of the date of signing by an authorized representative, agent or general partner of the TRRC.

Dated: December 22, 1988

Authorized Agent, Representative, or
General Partner of
Tongue River Railroad Company

Dated: Dec. 23, 1988

Gary J. Wicks, Director
Montana Department of Highways